

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1174—VOL. XXVIII.]

LONDON, SATURDAY, FEBRUARY 20, 1858.

STAMPED . . . SIXPENCE.
UNSTAMPED . . . FIVEPENCE.

R. JAMES CROFTS, MINING AND SHAREBROKER,
No. 1, FINCH LANE, LONDON (established 14 years), TRANSACTS every
day in BUSINESS IN MINING SHARES, but, not being a DEALER, BUYS and SELLS
on orders confined to him.

Mr. Crofts recommends immediate attention on the part of buyers to the following
mines, in connection with their late and present prices. Such an opportunity as the
present time presents for investing in CHEAP SHARES probably never occurred,
may be long before it will occur again:—

DIVIDEND MINES.		Last dividend,	Former price. Present. Bi-monthly or quarterly.
Providences	£ 95	£ 55	£ 4 0 0
Vale of Towy	3	12	6 0 6
Trelawny	35	21	2 0 0
Tinoroff	6	4	0 5 0
St. Day United	4	28	0 0
Par Consols	23	21	1 0 0
Herodfoot	12	7	0 12 0
Wheat Margaret	70	62	2 0 0
Ding Dong	43	16	1 10 0

SPECULATIVE AND PROXIMATE DIVIDEND.

Former price. Present.	Last dividend,	Former price. Present.	Former price. Present.
real Edward	£ 10	North Frances	£ 25
West Wheal Alfred	20	Porkery Consols	11
West Wheal Russell	15	Wheat Margery	20
West Wheal Bertha	1	Lady Bertha	2
long list being rather bewildering than instructive, Mr. Crofts offers the same as a selection, but without prejudice to many other good mines. The average return on the above enumerated shares is upwards of 27% per cent., taking one share of each mine.	12%	12%	12%

R. JAMES LANE, NO. 29, THREADNEEDLE STREET,
MINING SHARE DEALER.

FOR SALE, FOR IMMEDIATE DELIVERY.—

5 Alfred Consols.	1 Condurrow, £100.	1 West Seton, £355.
Bryntail, £25.	1 Grampier, £15.	1 Bassett, £250.
Carn Brea.	10 Hington.	5 Kitty (Lelant), £14.
Ding Dong, £15.	2 North Roskær, £25.	1 Margaret, £62.
Fowey Consols, £4.	1 Providence, £82.	2 Mary Ann, £48.
Botalack, £200.	1 South Frances.	1 Trelawny, £24.
NON-DIVIDEND.		
Balloon, 17s. 6d.	7 Cll. and Wentw., 25%.	5 North Frances, £10.
Gullion, £15.	10 Hender, 23%.	2 South Bassett, £12.
Carvannal, £5.	5 Rosey and Herl., 26.	50 So. Condurrow, 4s. 6d.
Copper Hill, £155.	14 North Downs, 26s.	20 Trelawny, £15.
Grenville, 33s.	5 Margary, 25%.	
WANTED.—22 East Margaret, at £3, cash.		
Apply to James B. BRENCLEY, 11, Royal Exchange.		

DIVIDEND MINES, well selected, are the BEST of all PUBLIC
INVESTMENTS, paying, as they do (in dividends every two or three months),
20 to 30 per cent. per annum. NON-DIVIDEND MINES, carefully chosen,
quently advance in price 500 per cent., or more.

ETER WATSON, MINING BROKER, having 14 years' experience in every
partment of mining and its management, together with an extensive and regular
correspondence with mining agents and others in Cornwall, Devon, and elsewhere,
enabled to judge of and select mines of intrinsic value. Peter Watson, being a
member of the Mining Exchange, will forward a list of prices when required, and
be consulted daily as to purchases, sales &c.

Bankers—Union Bank of London.

Commission 1½ per cent. on all transactions.

PETER WATSON is a BUYER or SELLER of the following, at prices affixed:—

Buyer.	Seller.	Buyer.	Seller.
Alfred Consols.	£ 12½.	Wheat Mary Ann	£ 47½.
Botalack	200.	Wheat Trelawny	21s. 6d.
Bryntail	25.	Wheat Edward	7s. 6d.
Carn Brea.	10.	Gawton Copper	18s. 6d. 21s. 6d.
Ding Dong.	15.	Wheat Charlotte	3s. 3d.
Fowey Consols.	4½.	East Wheal Russell	5s. 3d.
Botalack	200.	South Wheal Bassett	9s. 9d.
Non-Dividend.		Wheat Zion	3s. 3d.
Balloon, 17s. 6d.	7 Cll. and Wentw., 25%.	Trelawtha	2s. 6d. 26s. 6d.
Gullion	15.	Wheat Arthur	3s. 3d.
Carvannal	5.	Providence	—
Con and Cunw. Unit.	12½.	Wheat Margaret	—
West Gwain Lakes and	13½.	Wheat Lovell	3s. 3d.
South Bedford	2½.	Chancetown	1s. 3d. 2s. 0d.
Ding Dong.	17½.	Caldicot Consols	—
Wheat Bassett	2½.	West Frances	20s. 22s.
Alfred Consols.	100.	Kelly Bray	2s. 6d. 46s. 6d.
Non-Dividend.	2½.	Porkells United	—
Botalack	200.	Ludcott	26s. 6d. 1½.
West Bassett	100.	Vale of Towy	2s.
Alfred Consols.	100.	Wheat Arthur	—
Non-Dividend.	2½.	Vale of Towy	2s. 6d. 27s. 6d.
Botalack	200.	Providence	—
West Bassett	100.	Wheat Margaret	—
Non-Dividend.	2½.	Wheat Lovell	—
Botalack	200.	Chancetown	1s. 3d. 2s. 0d.
West Bassett	100.	Caldicot Consols	—
Non-Dividend.	2½.	West Frances	20s. 22s.
Botalack	200.	Kelly Bray	2s. 6d. 46s. 6d.
West Bassett	100.	Porkells United	—
Non-Dividend.	2½.	Ludcott	26s. 6d. 1½.
Botalack	200.	Vale of Towy	2s.
Non-Dividend.	2½.	Wheat Arthur	—
Botalack	200.	Vale of Towy	2s. 6d. 27s. 6d.
Non-Dividend.	2½.	Providence	—
Botalack	200.	Wheat Margaret	—
Non-Dividend.	2½.	Wheat Lovell	—
Botalack	200.	Chancetown	1s. 3d. 2s. 0d.
Non-Dividend.	2½.	Caldicot Consols	—
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Non-Dividend.	2½.	Wheat Arthur	—
Botalack	200.	Vale of Towy	2s. 6d. 27s. 6d.
Non-Dividend.	2½.	Providence	—
Botalack	200.	Wheat Margaret	—
Non-Dividend.	2½.	Wheat Lovell	—
Botalack	200.	Chancetown	1s. 3d. 2s. 0d.

GREAT CRINNIS COPPER MINES.

In 6000 shares.—Deposit, £1 per share.

On the "Coor-noot System."

The permanent committee and bankers to be appointed by the shareholders, as soon as the share list is closed. The applications for shares will be examined, and approved of, by a provisional committee of known respectability.

These mines were worked from 1812 to 1825, and produced enormous quantities of copper ore. One deposit alone yielded ore of the value of considerably more than £1,000,000 sterling.

A company was formed a few years since to work these mines. They have been drained, and an active search has been made for the counterpart of the large deposit which was expected to be found in deeper levels. This company was constituted as a "scrip," or non-registered company, and as all the subscribed capital is expended, through the anonymous character of the company no further capital can be raised. The present company must be wound-up and closed, in consequence of the impossibility of raising funds.

It is the opinion of practical men that the counterpart of the last deposit of ore has been found in the 80 fathoms level east. Copper ores have been sold from this level during the last four months of the value of about £3000. Although this result is arrived at, the company has no funds to prosecute the undertaking in deeper levels.

An advertisement has already appeared, soliciting the present shareholders to take the new shares, and the result is that about 1500 shares are still undisposable, of which are now offered to the public, through a provision which will be given to the original holders. The opportunity now open to the public is rarely to be met with. Instead of paying a large sum for a naked piece of ground, the machinery and all the works are offered to the new company for £4000. The auction value of the machinery is considered to be about £3000. Therefore, all the works, thoroughly drained and secured, and all the apparatus, would become the property of the new company for the sum named, which is considered a most advantageous purchase. The following is the course which the new company will adopt.

It is intended to form a company strictly under the Cost-book System, in 6000 shares; deposit, £1 per share. This sum would pay for the mines (£24,000), and a wharf-engine (say, £1000), leaving £1000 to be applied to assist the labour cost for about three months. Then, a call of 5s. per share is recommended, which would assist the cost for four months more. It is thought that the 100 fm. level might be extended to the base of the new run of ore ground discovered in the 80 fm. level in about six months. The 100 fm. level must be driven about 20 fms. further east and communicated with the Union shaft, and the wings must be completed from the bottom of the 60 to the rise in the back of the 80 fm. level. If the new run of ore should increase in value in the same ratio from the bottom of the 80 to the 100 fm. level as it has in the top of the rise in the back of the 80 to the bottom of that level, it would be one of the most valuable shoots of ore in the county; it is worth 71. 10s. per fm. in the top of the rise, about 7 or 8 fms. above the 80, and immediately under, in the bottom of the level, it is worth £30 per fm. If these works are carried out with vigour, it will soon prove a valuable mine.

The old company is in 40,000 shares, therefore one share in the projected company would equal nearly seven in the old.

Application for shares, in the annexed form, and further information, can be obtained from Mr. W. CHARLES, 27, Austin Friars, E.C., London, to whom all communications are to be addressed.

GREAT CRINNIS MINES.—To the Provisional Committee.

GENTLEMEN.—I will take shares, or any part thereof, in the new company now being formed for working these mines, in accordance with the advertisement I have read, and I hereby agree to pay the deposit of £1 per share whenever called upon to do so.

I am, Gentlemen,

Address
Reference

D A L E M I N I N G C O M P A N Y (L I M I T E D).
Capital, £50,000, in shares of £1 each; 10s. payable on allotment, and the remainder as may be required.

OFFICES, 5, WATERLOO PLACE, Pall Mall.

The Dale Mine is situated in North Staffordshire, and presents an unusually favourable opportunity to those who seek a safe and profitable investment.

The outlay up to the present time has been made judiciously and economically, and has so far laid open the resources of the mine as to enable one of the most experienced mining authorities of the day—Mr. J. H. Hitchins, of the Devon Great Consols—to pronounce in a very decided manner as to the profitable results of its further working.

Adjoining Dale are the Ecton Mines, which have paid to the Duke of Devonshire from £50,000 to £70,000 per annum for 30 years. Dale is opening out in exactly the same manner, and presents even more favourable indications than Ecton did at the same depth.

The outlay of about £2500 will bring Dale Mine down to the depth at which Ecton began to make its great riches. A junction between the Pipe vein and the immense cross-course, called the "Lum," is about 20 fathoms below the present bottom of the mine; and other experienced agents, well able to judge, confirm Mr. Hitchins's decided opinion, that when this is reached, if not before, its productiveness will be found very great, and Dale will become a permanently dividend-paying mine.

Applications for shares are to be made to the secretary, Mr. J. D. BRUNTON, at the offices of the company: from whom, and also from Messrs. J. J. REYNOLDS and SON, 1, Royal Exchange-buildings, may be obtained prospectuses, with plans of the mine, and reports.

The following is an abstract of Mr. J. H. Hitchins's report, which is very full:—In compliance with your request, I have examined this mine. I feel much satisfaction in being able to report favourably thereon. Your operations are carried on in the same range of lime rock as Ecton. No. 3 lode and Johnson's lode are in the crystallised grey lime rock, and pretty nearly similar in their characteristics to the Pipe vein, which circumstances are, in my opinion, so many additional proofs that this unusually strong metalliferous vein will prove a very prolific one at a depth not much greater than the present bottom level. There are some other rare veins and feeders which will exercise a beneficial influence on the future produce of the mine. I have much pleasure in directing your attention to the main feature of the mine—the Pipe vein, from which the return of ore, to the value of 2000*t*, cannot but be deemed highly satisfactory; it has proved a strong an' highly metalliferous vein all the way from the surface, and I have no hesitation in saying that it is my most decided opinion it will prove very permanently productive and profitable at its junction with the cross veins and feeders before referred to, and more particularly when it meets with the large cross-course called the "Lum," which it is calculated will take place about 25 fathoms below the bottom of the present working. The "Lum" when driven through in the adit, produced large stones of ore, similar to those from the Pipe vein, which is another fact very strongly in favour of a great deposit being realised at their junction. There are many other very promising objects within your seat, but I would advise your operations to be confined to the main Pipe vein—so particularly recommended, and dwelt on—until its produce shall yield you a surplus for other trials. In conclusion, I not only consider this undertaking one of a very promising character, but a decidedly safe one, and that it will result in a profitable investment, if properly carried out.

INVESTMENTS IN BRITISH MINES.

Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

BRITISH MINES CONSIDERED AS AN INVESTMENT.

Recently published by J. H. MUSCHISON, Esq., F.G.S., F.R.S.

Pp. 350; price 3*s.* 6*d.*, by post 4*s.* 6*d.*

Mr. Muschison also publishes a QUARTERLY REVIEW OF BRITISH MINING, giving, at the same time, the Position and Prospects of the Mines at the end of each Quarter, the Dividends Paid, &c. The Review for the Quarter ending the 30th of June, contains a Map of the Great Wheal Vor and Leclant Mining Districts, price 1*s.* Reliable information and advice will at any time be given by Mr. Muschison, either personally or by letter, at his offices, 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

OPINION OF THE PRESS.

Mr. Muschison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—Mining Herald.

The book will be found extremely valuable.—Observer.

A valuable little book.—Globe.

A valuable guide to investors.—Heraphat.

Mr. Muschison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—Morning Herald.

Of special interest to persons having capital employed, or who may be desirous of investing in mines.—Morning Chronicle.

Parties requiring information on mining investments will find no better and safer Instructor than Mr. Muschison.—Leeds Times.

As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—Derby Telegraph.

To those who wish to invest capital in British mines, this work is of the first importance.—Welshman.

This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide.—Plymouth Journal.

All who have invested, or intend to invest, in mines, will do well to consult this very useful work.—Ipswich Express.

This is really a practical work for the capitalist.—Stockport Advertiser.

Persons desirous to invest their capital in mining speculations, will find this work a very useful guide.—Warwick Advertiser.

It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom.—Sheffield Free Press.

Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work.—Monmouth Beacon.

Every person connected, or who thinks of connecting himself with mining speculations, should possess himself of this book.—North Wales Chronicle.

A very valuable book.—Cornwall Gazette.

[Glasgow Examiner.

All who have invested, or intend to invest, in mines, should pursue this able work.

We believe a more useful publication, or one more to be depended on, cannot be found.—Plymouth Herald.

With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital.—Poole Herald.

Mr. Muschison will be a safe and trustworthy guide, so far as British mines are concerned.—Bath Express.

GLENFIELD PATENT STARCH.

USED IN THE ROYAL LAUNDRY.

AND PRONOUNCED BY HER MAJESTY'S LAUNDRESS TO BE

THE FINEST STARCH SHE EVER USED.

Sold by all chandlers, grocers, &c.

THE ONLY REAL CURE WITHOUT INWARD MEDICINE IS

ROPER'S ROYAL BATH PLASTER, For Coughs, Asthma, Hoarseness, Indigestion, Palpitation of the Heart, Croup, Hooping Cough, Influenza, Chronic Strains, Bruises, Lambs, or Pains in the Back, Spinal and Rheumatic Affections, Diseases of the Chest, and Local Pains.

Prepared only by ROBERT ROPER AND SONS, Chemists, Sheffield, on medico-chemical principles, from British Herbs and the Gum, and Balsams of the Eastern Climate, where—

"The trees drop balsam, and on all the boughs."

Fall-sized plasters, 1s. 1*½*d.; and for children, 9*½*d. each, or direct by post on receipt of 1s. 4*d.*, or 1s. each in postage stamp. Sold by most Patent Medicine Vendors in the United Kingdom.

BEWARE OF IMITATIONS!—Be particular, and ask for ROPER'S PLASTER.

Original Correspondent.

THE TRANSATLANTIC TELEGRAPH.

SIR.—Since the date of my last communication, I have learned that the Government intends to publish the chart of Capt. Dayman; but it is to be hoped that the detailed reports on the soundings will also be given, to complete the data on which a judgment may be formed. I shall, therefore, defer certain observations respecting the condition of the so-called "telegraphic plateau," until we obtain those data; for any argument in their absence would place us in the position of the agents of the Institute discussing the question as to why a fish gave no displacement in its element—before the fact was demonstrated.

The early production of these documents is all the more important, as it is now positively announced that the Transatlantic Company is to fit its capital augmented, and the original 100*t*. shares converted into the more marketable stock of 20*t*. Can any one mistake the object of this conversion? It is fairly open to the surmise that the original subscribers are resolved to back out of the scheme, and plant their shares in a new form on the small holders who deal in 20*t*. shares, proverbially the unwary, who, with a small capital, the fruits of honest industry, are easily led into the most worthless speculations by the bait of a prevailing premium. If the object of extension were really honest, and the facts decisive of success, what is more simple than to get thirty additional subscribers of the 100*t*. class? It is only 30,000*t*. the additional cable is to cost—according to the published statement of our American friends. Let a thousand-pounder just read the brilliant account in Maury's Supplement to "Sailing Directions," based on the report of Professor Bailey on Berryman's soundings, after "a few hours' afternoon inspection,"—probably a little late in the day. It is off-hand, without other object than the instruction of those that go down to the mighty deep, as it apropos des boute, that there can be no suspicion of any collateral bearing.

"The investigations authorise me," says the Sailing Instructor, "to affirm that the strength of the Atlantic is so free from currents, and all destructive influences, that a rope of sand once laid would have sufficient strength to sustain there!" I am obliged to quote from memory, but I state correctly the substance. Why hesitate, oh, Thousand-pounder! to turn your ninepences into nobles, and make your thousands tens of thousands? Philanthropy! to open the sluices of gain to the hard-working mechanic, the country curate, *et hoc genus omnes!* No, not so green as that is it then, the small voice of doubt of the *premier pas qui conte*, that hypothetical "once laid," which suggests that the monetary mind may come to grief if it do not change the nobles into ninepences? If not, let us have out this information which you have had long since in hand—important statements of facts, and no exaggerated fiction. How many rocky cliffs to cut your slender thread "no thicker than the finger!" How many chasms of varying depth in which your line may coil, or hang, or drag and chafe? But questions now are useless. When we secure the evidence of competent witnesses, we can frame our issues for the public verdict, and not till then.

It is to be hoped that the Government will not, by hesitation or delay, become accessory to any measure calculated intentionally, or unintentionally, to mislead the subscribers as to the feasibility of a project which, from its vast influence, if practicable, would induce many to risk their means in the expectation of profitable results, founded on illusory guarantees, and the sanction of Government. This demand for prompt and impartial information is all the more essential and urgent, on account of a very significant and opposite experience which has just been obtained, and relatively to which the Atlantic operation is a *fortiori* case. It has been announced under the hand of Mr. Brett himself, that the submarine telegraph between Sardinia and Algeria has ceased to act. If this cable of enormous strength has failed, let me ask what chance is there for that slight cord which is to be laid in the Atlantic? It appears that only one of the seven conducting wires of the Mediterranean line was in an efficient working state after its submersion, and that, at length, ceased to operate. This inefficiency of six conductors, and the interruption of the seventh, so far as similar influences may be expected to act on the Atlantic wires, I shall reserve for my next notice; together with my reasons for hazarding an opinion more presumptive than a mere doubt as to the unsoundness of the alluring design under consideration, whose fascination has led astray some of the most ardent of our eminent, much in the same way as did the flying machine.

I have already too far trespassed on your space to do more at present than urge your influence to be employed in its most prominent form, with the view of enforcing the publication of all the documents in the possession of the Government connected with the survey of the *Cyclops*. When they are before you, I am much satisfied if it do not appear that the eventual success of this measure is far removed from absolute certainty. If so, it seems to me an act of grievous injustice to the public to be invited to invest their money for carrying out experiments which ought, if deemed nationally requisite, to be conducted at the public expense, by public officers, and not for the private profit of a few individuals. I am, Gentlemen, etc., etc.

EXTENSION OF LIMITED LIABILITY TO BANKING.

SIR.—From the healthy position of our monetary affairs generally, coupled with the important modifications which have been introduced into our system of commercial law, a period of unexampled prosperity is confidently anticipated, and that there is everything to justify such anticipation has been fully proved by the ready manner in which the several projects brought forward have been received by the public. The capitalist need not henceforth fear that a single injudicious speculation will be his utter ruin, as the law at present stands, the creditor has ample security against loss from transactions with public companies.

There can be no doubt that the Legislature acted most wisely in so framing our laws that although the majority of our public undertakings can secure liability to their shareholders, banks and insurance companies are prevented from doing so; for from the fact that the failure of an insurance company deprives the provident of benefits which they have looked forward to for a whole life, and that the business of a banking company is such that the publicity required by the Joint-Stock Companies Act, 1856-7, could not be given without materially endangering the position of it, if honestly conducted, it is probable that limited liability in banking and insurance operations would only be availed of by unprincipled schemers, and persons in whom the public should place no confidence.

The "Joint-Stock Banking Companies Act, 1857," offers facilities for the formation of banking companies compatible with public safety, and certainly the responsibility of the shareholders is not greater than they should be willing to submit to, considering the trust reposed in them and the profits which they realise. They should remember that the Act referred to really limits their liability to their *pro rata* share of the demands upon the company, and that they are not subjected to the annoyance of being individually sued; and they cannot deny the fact that the public generally have greater confidence where the shareholders are responsible, than where the assets of the company are all that they can look to for security. Such being the case, it certainly appears remarkable that it should be proposed to abolish the distinction between joint-stock banks and other joint-stock companies, and thus allow bank shareholders to trade without liability beyond the amount of their respective shares.

Those in favour of "limited" banks will, no doubt, argue that as the limited liability system has worked so well with other companies it cannot fail with banks; indeed, Mr. Headlam, in moving for leave to bring in a bill assimilating the law, has said almost as much; but it must be recollect that the dealings are totally different, the one being of a far more speculative character than the other; since the commercial company is seldom involved in trade far beyond its capital, whilst a banking company with a capital of 1,000,000*t*. is frequently speculating with ten times that amount. I trust limited banking may never be allowed by law, but if it be, I consider that no one can be pitied for losing by transactions with such concerns, whether by connecting themselves therewith as shareholders or depositors.

A. H. C.

WINDING-UP OF COMPANIES.—CAUTION TO MINERS WITHIN THE STANNARIES.

SIR.—My attention has during the week been drawn to this matter by two circumstances: first, by reading the letter in the Journal on the affairs of the Blaenavon Iron and Coal Company, in which a minority threatened to place the concern in Chancery for being wound up, forgetting the old maxim of

"My friend, who the thieftakes of law ne'er tried,

Consider before you get in;

For though the case and the judgment be both on your side,

You'll surely be fleeced to the skin."

In the second case, by sad experience of the folly of resorting to such extreme measures, either in the heat of temper or imaginary relief from responsibilities, the facts relate will, I hope, be of service in preventing others from adopting such profligate foolish, and certainly ruinous proceedings, as the step being once taken, and the fangs of the harpies once fastened, there is no retrograde movement possible; even if there were, the High Court of Chancery is a *stunney* to wage a trial of strength with. In the Act a clause is inserted by which, on the Lord Chancellor's decree of the list of contributors being once settled, cannot again be questioned or disturbed; and that the books of the company about to be wound up be taken as absolute evidence *de facto* of the liability. The details of the case are as follow—many who read this to their sorrow know them to be facts, and none will feel it more keenly than those who inadvertently and in the anger of the moment adopted the ruinous proceeding!—A mine in Devonshire, divided into 5000 shares, that, from the quarrelling of the shareholders, had fallen into dispute, arrears of pay to the merchants and labourers, to the amount of no more than 50*t*, or certainly not 100*t*, is the subject. Certain parties feeling themselves aggrieved by the non-payment of their overdue accounts, and by the non-reply of the secretary to any of their continued applications (I am bound in duty to this officer to say he could not get a committee together to set), sued two of the shareholders for sums of about 9*s.* The letters of the attorney in the cases having no more attention paid to them than previous epistles had evoked, the expenses were allowed to accumulate for months; and, in the mysterious manner lawyers and factors only know how, the bill and costs soon swelled to a large sum, for which writs were issued against the recusant shareholders (committeemen by the bye). These functionaries, who had not contributed a shilling towards working the mine, theirs being free shares, at once hurried off to Chancery, and took measures immediately to wind-up the company's affairs; thus, for the time, exonerating themselves from these liabilities. Even at that time the whole mine could have been cleared of debt and costs for 150*t*. or 200*t*; but time has rolled on, the mine has been sold by the Master in Chancery, and has since turned up a trunk of immense value. The shareholders are now saddled with a call, and (*mirabile dictu*) on these very parties who hold some 150 shares each, for 10*s.* per share, and it is questionable if even this will liquidate the undertaking. Thus, not less than 2250*t*. have been absolutely presented to the gentlemen of the long robe

THE MINING JOURNAL.

perly judged of the ability of the gentleman who has audited his, not our, accounts; also the propriety of appointing him an auditor. It is gratifying to see the favourable notice of Bon Accord in the report, which occurs in No. 5 account as "profit on sale of property, 4194L 15s. 7d." Not a word about the royalty we were to receive; another species of concealment on the part of our directors, who promised so much. However, there are some good things in the report, which reflect the greatest credit on the late management—first, the profit of 13,001L 5s. 4d., the result of their joint efforts, and which gives as a dividend of 8½ per cent.; secondly, the manner in which the new colonial manager, Mr. Buckland, is spoken of, and who was appointed by them; and thirdly, that we still retain the services of our much esteemed and most worthy secretary, Mr. Judge. With such a manager, and such a secretary, I have no fear for the lasting prosperity of the company, especially if we can be spared public accountants for auditors.—Feb. 19.

A SHAREHOLDER.

DOLCOATH MINE.

Sir,—I thank you for your very kind remarks in the Journal of last week, designed to protect me from what you considered to be some reflection on my judgment in estimating the quantity of tin stocked in this mine. The quantity stocked at the meeting of adventurers in December last, was not over 2000 tons. The statement of account presented to the adventurers on the 8th inst. was as follows:—"Tin ore not sold, now in stock, including 26 tons in stock at last account, 60 tons." The words used in December were—"Tin not sold, now in stock, 26 tons." The words used and the intention in both cases are true,—no error in judgment, nor misstatement having occurred in either case. This accumulation is wholly from the raised in the months the accounts were held for, and would have been fully dressed and sold at the usual time for the determination to withhold a portion.

Some two or three persons, having little or no connection with the mine, spread a rumour, and another party published it, that the stock was much less than the 26 tons. I will not give an opinion as to the motives which prompted the raising or the publication of the rumour; I leave the parties themselves to reflect on that in their calmer moments. No dissatisfaction or disappointment, except on the part of two or three comparatively small shareholders, ever was manifested, or, I believe, ever felt. I feel myself quite right with the adventurers in this as well as in every other matter, having every reason to believe that the adventurers have the same confidence in me now, and the same respect for my character, that they had when they presented me with the testimonial of plate a year ago.

Bring desirous of standing fair with the miners of Cornwall, and those interested in the mines, as well as with other readers of the Journal, is my motive in begging the favour of your publishing this note in your next impression. CHAS. THOMAS.

Dolcoath Mine, Feb. 6.

SAMPLES' FEES, AND TICKETING DINNERS.

Sir,—It would be really laughable to see all that is written under the above heading, were it not for the fact that whilst laughing on the one side we have cause for crying on the other side of the mouth. What does it all amount to; and who are these grievance mongers? When reduced to pounds, shillings, and pence, it amounts to a charge of 40s. for the sale of 25,000l., or about 3½d. for every 100l. This, as all must admit, is in itself not worth writing or talking about. Why, then, this stir? May it not be solely to blind the eye of shareholders to other real fiery fearful doings, and from which it is hoped these petty matters will serve to divert attention? But such low cunning must not succeed; and it will be more satisfactory to out-adventurers to see the names of Mr. Stephen Davey, Capt. Richards, and others, used in reform too long neglected. Let us have a full and searching investigation into the names of suppliers of materials,—into the quality, weight, and measurement, and into prices charged. In this, methinks, there will be no 2½d. per cent., but 10 to 20 per cent. to be saved. The swallows of some of these gentlemen are of marvelous capacity,—equal to "swallowing a camel whilst straining at a gnat." Who have prospered in our country like the so-called "mine merchants"? Look at them; go into their antecedents and their present position, and what must be the inference in respect of their profits, but that they are inexcessably great. And how happens this? Is it not because there are no auditors? Is this the case in any other public company? Let the gentleman named and others do their duty to those for whom they act, and purge the county of this crying sin. Let them advertise for everything by tender and by sample; yes, and if needful let two or three units in importing into the county the required supplies at first cost. Our profits would not then be mopped up by account-house dinner eating, cigar smoking, punch drinking merchants (was ever word so prostituted). Let us, by all means, abolish samples' fees, &c., but let not the doing of it be used as saw-dust to blind us to the real grievances hinted at by Cornhill, Feb. 18.

ANOTHER MINE ADVENTURER, AND CORNISHMAN.

THE STEAM COAL ASSOCIATION AWARD.

"Contend not (quoth Colton) with concealed opponents; neither reason with fools." Sir,—Your correspondent, "An Anti-(Carboniferous) Smoker," does little credit to the open, unmasked, manliness of its natives, by dating his effusion from St. Austell; he offends truthfulness when he quotes, with inverted commas, as if they were mine, words that cannot be found in my preceding letter; and he illily attributes to me feelings which I had specially and repeatedly disavowed. These are among the common tricks of the anonymous tribe.

My letter in the *Mining Journal* of the 6th inst. is a simple statement of facts. If either of your contributors differs with me thereon, and will endeavour to controvert that statement, partly or wholly, in his own name, I shall be happy to join issue with him. The Sepoy class of correspondents will understand that I follow the advice of Colton.—1, Fish-street-hill, Feb. 13.

J. LEE STEVENS.

THE STEAM COAL ASSOCIATION AWARD.

Sir,—I do not think that science can be benefited, or your readers (myself among the number) can be instructed, by the flippancy of such writers as your St. Austell correspondent, who calls himself "An Anti-(Carboniferous) Smoker." He assigns motives to Mr. John Lee Stevens which nothing in his letter, as it appears to me, can be said to warrant; at the same time he assumes Mr. Stevens to be ignorant of what is patent to every one who peruses your Journal, with a view to information and instruction, and of what it is only reasonable to suppose that he at least must have been acquainted with. I can see nothing in Mr. Stevens's letter to show any such ignorance. It strikes me as being a quiet circumstantial account of what has occurred, as far as he is concerned; and I look upon it as being nothing more than consistent and creditable. I agree with Mr. Stevens, and several perfectly disinterested writers on the same subject, that it is strange the gentlemen who conducted the experiments should have passed over the second class of competitors entirely; but this is very different from the foolish idea that is gratuitously fathered upon him of expecting the whole 103 plans to be tried.

As regards Mr. Williams's acceptance now of a challenge given to him so long as just four years since, it is in the first place absurd in itself, and in the next it partakes of the presumptuous tone in which "An Anti-(Carboniferous) Smoker" writes generally of the gentlemen concerned, as if he had been requested to represent their sentiments. He has not given a single denial to any allegation made in the letter he attempts so unfairly to criticize; nor has he attempted to maintain that his assumed friends absolutely were "arbitrators," although he cunningly leaves it to be inferred. The word "arbitrators," however, Mr. Williams I observe adheres to his correspondence with other journals.—Cambridge, Feb. 16.

GOVERNMENT SCHOOL OF MINES.

MR. WARINGTON SMYTH, on Monday, delivered the introductory lecture on "Mineralogy." This science was one of great importance, more especially to those who were connected with mining. The lecturer then stated that there was a division of nature to be considered—of the organic and inorganic substances. Mineralogy, considered *per se*, for many years has been limited to what in fact is a mineral, which is an homogeneous body, whether solid or liquid, that contains matter which is truly a natural production, and not formed by human art. The materials of the crust of the earth answer to the term of mineralogy; but there are other substances which may be mentioned that are only visitors to the earth—such as meteorites, which, coming from unlimited space, are thrown upon the surface of the earth. Coal, jet, and amber do not answer to the perfect definition of a mineral. If we look at coal through a microscope, or, what is better still, investigate its ashes, we shall see certain cellular substances which will prove its vegetable origin, and, therefore, it cannot be properly classed under the head of mineral. Some substances, such as graphite, common coal, anthracite coal, and peat, are partly mineral and vegetable, and there is a great difficulty of drawing the line of distinction between them. Brown coal appears at the one end like a piece of wood, and at the other as a mineral. The same might be said of the other substances, until they came to pass; they must, therefore, draw an arbitrary line, according to the necessities of the case. Mineralogy by some is said to be a science by itself; there are others who state that it is merely a branch of chemistry: for his own part he held to neither opinion. They had before them some specimens of fluor spar: they were of various colours—blue, green, pale yellow, and brown. The chemist would neither look to their hues or forms, but ascertain what were their component parts. The science of mineralogy embraced a vast field, and had reference to chemistry, physics, and geology. These ought not to be treated in single parts, but considered under one great whole. We sought, for a moment, to consider the quantity and the nature of the subjects brought under notice. There are something like 600 different species or kinds, and all of them have many varieties, and of these distinct species there are many that differ in their outward appearance, and have no more similitude to each other than a cat to a dog. The varieties were numerous in the instance of fluor spar; the crystals were of different colours; and with regard to calc spar and carbonate of lime the crystallographer can trace the different forms so as to determine the mineral. There are other points to be considered, such as the chemical constituents, the specific gravity, the lustre, the streak, and the hardness. A chemist may be able to tell after an analysis what a mineral is composed of; but this in general takes some time, and may be required to be treated at a distance. A practical man connected with mining cannot afford the time required to attain this knowledge, and it is, therefore, desirable when he meets with a substance that he should be able to a certain extent to decide upon its characteristics and commercial value, and know what the constituent parts of it are. With regard to minerals in general, chemists merely looked at them in a chemical point of view. A piece of galena, such as he held in his hand, was often brought to a chemist, who made an analysis of it, and stated the proportions of lead, silver, and sulphur it contained. In too many instances, on the faith of such an analysis of a single stone, reports were issued to the public, and a mine was started, very probably with disastrous results to those persons who were so unfortunate as to embark their capital in the speculation. A man having a practical knowledge of mineralogy would be enabled, at a glance, to state it contained from 80 to 85 per cent. of lead, with some sulphur, and the admixture of foreign matter. Under all circumstances, he could decide its commercial value, and if it would pay for working. There are a great many varieties, as well as several well-defined species. He would now instance a piece of rock, one of the oolite limestone, which was well known to them under the definition of Bath stone. This was found in this country in vast beds or sheets; this they had not to consider, but it was merely to say whether it was a mineral. It was inorganic and homogeneous, and if broken up they would find throughout it was composed of carbonate of lime. This he should say was a mineral. If we look at the other specimen before us, of porphyry, and break it, we should find that at several points it had different degrees of hardness and lustre, and we should discover varieties of quartz and felspar, and in some instances amethyst. This, then, is not a mineral, but a rock. The polished specimen before them the lapidary, he might mention as an instance, had charged him 1s. for cutting. In performing this operation all the edges of his tools had been spoilt by the crystals of quartz which he had met with. They would derive, in the course of pursuing their studies, great information from several works he could point out to them; and, although the lectures they might hear there would be of great utility to them in directing their studies, their usefulness would be nullified unless they read at home, not

only carefully but at the same time diligently, and inspected collections whenever they had the opportunity. The collection at the British Museum was one of vast importance, containing, as it did, many rare minerals; but in their own museum was more limited, and applied to those which could be practically employed. He would recommend them whenever they had the chance of exploring a waste burrow at a mine, or the rocks of any district that might be in, to take advantage of these circumstances, as by personal observations they would get more familiar acquaintance with minerals than could be attained either by books or lectures. Among the works he would recommend was that of Phillips, revised by Brooke and Miller; this was a very useful work, but perhaps rather difficult for students who were commencing mineralogy. Then there was Dicks, who gave a good account of all the minerals, especially those found in North America. There was a smaller edition of this work, which was a good school book. To those who understood German he would recommend Naumann, a portion of whose works had been translated by Prof. Nicol, of Scotland, in his handbook. Then there was Rosé, of Berlin, and Hammelsberg; this last was especially good in the chemistry of metals. Among French authors was Dufresne, who had written a large book, which contained many inaccuracies, and was only fit for those more advanced in the science. They had then Beaumont. In Orr's *Circle of Sciences* they could obtain much information. Weiss had written well on the subject, and Chapman afforded useful information in the blow-pipe. He would recommend the student at the same time he perused his books to endeavour to obtain a collection of minerals, however small they might be, acquired by his own hand, which would be much better than any expensively purchased of the mineral dealer. The lectures then alluded to the position of minerals in volcanic formation. These, however, were comparatively few, the greatest quantities being found both in England and abroad in veins or lodes of tin, copper, iron, and lead mines. The crystallization of minerals was then alluded to, this word being derived from the Greek *crystallinos* [ice], it being believed that the substance was frozen so hard that it could not be thawed. Some of the minerals, such as opal and the turquoise, have no definite form, and these were called amorphous. Formerly, many of the enthusiastic crystallographers would not class the amorphous species with the minerals, but placed them in an appendix to themselves. They were now classified with the minerals they had an affinity to. Mr. Warington Smyth then pointed out the differences between those minerals which were crystallized and those not so well defined, which are denominated crystalline. Some of the amorphous nodules, which were found in the marls, by educated people had been considered to be petrifications of beetles and other organic substances. These, however, had been formed by certain laws of aggregation. In proceeding with the course there were many points they would have to consider, which time had not allowed him to allude to in this day's lecture.

The concluding lecture of the course of Metallurgy, by Dr. PERCY, was on "Iron." He stated that in the few discourses he had given them on this subject he had not been able in any manner to render justice to it—in fact, on this one metal alone 20 lectures would not suffice to fully enter into all the details. With regard to Bessemer's process, of which he had given an analysis last year, the iron produced from it contained a quantity of phosphorus, and this it appeared could not be got rid of. An important improvement in the manufacture of iron, that of puddling, was introduced by Mr. Cort, in the year 1783. The iron was melted in a reverberatory furnace; so soon as the pieces were free from carbon they formed into a pasty mass or ball, having more or less of tap cinder mixed with them. As the iron loses its carbon it is technically said to come to nature; these balls are about 70 lbs. weight each; they were drawn out of the furnace and then subjected to pressure, by which a great proportion of the tap cinder was lost; after they had been subjected to this operation the product was called puddled bar, the tap cinder which was turned out was afterwards reduced in the blast-furnace. The bottoms were formerly of sand, but they are now of iron, prepared by hematite, and bull dog, which was, as they were aware, coked tap cinder. Formerly the refining and puddling could not be performed in one furnace, but it is done now. A diagram of the furnace in which this operation is performed was shown and described. Great skill is required by the workmen here; it seems to be merely rude and simple in practice, but this is not the case, as much depended upon the manipulation of the metal during the boiling. The iron is afterwards subjected to hammering, and then rolling. The introduction of this latter process has likewise been ascribed to Mr. Cort, somewhere about the year 1783, but books of some antiquity mention it previously. A mill for the purpose of slitting iron has been known from earlier times.

In an old patent, taken out in 1754, mention is made of taking the iron, then hammering it, and afterwards subjecting it to the process of rolling in a rolling-mill. We have now got to the puddled bar, but not the merchant bar, to which we will come presently. In looking at the puddling furnace, they would perceive the large size of the grate. The charge is about 4 cwt. of pig-iron and 1½ cwt. of hammered slag, and generally melted an hour and a half; this time is necessary if thick coal is employed, but when new mine coal is used it takes a longer period. When near the melting point the iron becomes brittle, and is easily broken by the tool of the puddler; afterwards it is infusible and pasty, and great rapidity is required in removing the bars or pieces from the furnace: 22 cwt. of pig-iron in South Staffordshire will give 20 cwt. of puddled bar; sometimes 21½ will give the same proportion. A good puddler will earn 3s. per week, as well as paying his assistant, or boy, wages. They are generally paid by piece-work. In making hoop-iron they get more. Red ore generally gives a larger yield, and, therefore, the workmen like to get it. On the average, 24 cwt. of thick coal to 20 cwt. is required; if new mine coal about 2 tons more will be consumed. After the iron is come to nature the waste may probably take place. The fire is then damped, and a non-reducing flame is produced. If the furnace is worked cold the iron becomes red-short. You might expect that in the puddling furnace the metal would be in a state of white iron, the same as in the rolling-mill, and it is so in a peculiar sense.

The ordinary calculation in South Staffordshire is 24 cwt. of pig-iron to 20 puddled; the bars are then cut into faggots, and heated in a reverberatory furnace, subsequently to rolling. The tap cinders and the blue cinders are often crystallized very beautifully. In clayey iron ore there is especially a great deal of phosphorus; this is not found in the slag, though occasionally it may be so; this, however, is the exception, not the rule. Sometimes in the slag there is from 5 to 6 per cent. of phosphoric acid; in general, however, it may be reckoned at 2 per cent. In Bessemer's process the phosphorus is not eliminated, the slag merely containing a trace. When you have to deal with a quantity of pig-iron containing phosphorus you cannot extract it by this process. Before the introduction of the puddling furnace it was either taken direct from the ore, or worked from the pig in a small blast furnace. The air is introduced in ordinary furnaces at the top, and, in Bessemer's at the bottom, which makes a great difference. It has been stated that in many cases the goodness of the iron depends upon the quality of the ore; this he was inclined to think was a fallacy; he believed that much rested upon the skilful manipulation. A puddled bar is a spotty mass of wrought-iron with a tap cinder; this is compressed and squeezed out, the faggots are then heated to a welding point, and subjected to other treatment, in order to be fit for the market. The lectures then alluded to the action of hydrochloric acid upon iron; several pieces of bar and wrought-iron which had been under its influence were shown, and the varieties of action displayed.

He would now come to the making of steel by cementation; this process consists of heating bar-iron in a sufficient temperature and a certain period of time in contact with wood charcoal, the carbon will then enter into the very centre of the bar. It is not always possible, however, to attain uniformity; in some cases the bar-iron is broken up, and the pieces are then heated to a welding point, and subjected to other treatment, in order to be fit for the market. The lectures then alluded to the action of hydrochloric acid upon iron; several pieces of bar and wrought-iron which had been under its influence were shown, and the varieties of action displayed.

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The report and accounts were unanimously passed.

welded, and then adding sand or a little borax on the surface, which, by dissolving the oxides of iron, renders the metallic surfaces clean and susceptible of welding. A Swiss workman some time ago found out, and used with great advantage, a mixture for the above purposes, at the steel-works of Durkheim, and Mr. Rust found this mixture to be composed of—Borax, 61-00; sal ammoniac, 17-25; ferrocyanide of potassium, 16-75; resin, 5-00=100. This composition being rather expensive, Mr. Rust adopted a cheaper and more effective one, composed of—Borax and, 25-6; common salt, 30-1; ferrocyanide of potassium, 41-5; calcined common salt, 35-9; ferrocyanide of potassium, 15-5; anhydrous carbonate of soda, 6-0=100.

Meetings of Mining Companies.

NORTH BULLER MINING COMPANY.

The quarterly meeting of the shareholders was held at the offices of the company, Austinfriars, on Monday, Mr. T. S. Cuvera in the chair.

Mr. E. KING (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

The following report, from Capt. T. Glanville, was then read:

Feb. 18.—Louis engine-shaft is down 3 fms. 4 ft. under the 78 fm. level, and by the underlie of the lode in the levels above the distance to sink will be 2 fms. before intersecting it: we hope to accomplish this in about a month. In the bottom of the shaft the stratum is a light kilmill, congenial to the production of copper ore. The 80 cross-cut is extended 42 fms. south of Wheal Uny engine-shaft; in this distance there has not been seen the least sign of a lode, which leads me to believe that King's lode has changed its underlie; and as the cross-cut is extended so far, I would strongly recommend continuing it, to see the lode. A change in the underlie may have a beneficial effect, as is often the case with the lodes in the adjoining mines. In the present end the stratum is a dark kilmill, but I have no doubt we shall find it of a better character for copper ore when near the lode.
A statement of accounts was exhibited, from which the subjoined is condensed:
Balance last audit..... £ 85 2 2
Mines cost and merchants' bills, Oct..... 150 9 4
" " " Nov..... 115 18 10
" " " Dec..... 131 1 5 = £422 11 9
Calls received..... 435 4 0
Balance against adventurers..... £ 17 7 9

The report and accounts were unanimously adopted.

The CHAIRMAN stated that, at the last meeting, 202 shares were forfeited for arrear of call; but he was happy to state that the whole had since been paid, and the shares restored.

A resolution was then unanimously passed, that the 86 shares now in arrear of call be forfeited, subject to restoration, if the call be paid in 14 days from date of meeting.

A call of 7s. 6d. per share was made, and the committee of management re-elected.

The proceedings terminated with a vote of thanks to the Chairman.

GREAT TREGUNE MINING COMPANY.

A special general meeting of shareholders was held at the offices of Mr. Hobler, Bucklersbury, on Tuesday, Mr. Scott in the chair.

The SECRETARY read the notice convening the meeting.

The CHAIRMAN submitted the following reports of the directors and Capt. Spargo:

DIRECTORS' REPORT.

Although the constitution of this mine does not require above one general meeting in the year, and to be held in the month

per share, but contribute £1. per share on their present holding for four months, receiving a share of the same value. Mr. Pollard concluded by moving the following resolution:—

That it is the opinion of this meeting the mine should be well supported, to bring it into a dividend-paying state as soon as possible; and to effect this object a voluntary subscription should be entered into by such shareholders as think fit, at the rate of £1. per share per month for four months on their present holdings. Parties holding more than 1000 shares may, if they please, limit their subscription to 1000. Payments of £1. per share are to be made on March 1, April 1, May 1, and June 1; and, that by way of bonus to such shareholders as join this subscription, the directors are hereby authorized at the end of four months to create such a number of new shares as will distribute one share for every 100 so subscribed. It is understood that this agreement, by the signing of 22 shareholders present, representing upwards of 5000 shares, shall be notified to the absent shareholders, whose addresses are known, with a notice that their intention of joining the subscription must be signified by the 23rd inst. to entitle them to the bonus thereby offered.

Mr. BAXTER seconded the resolution, because he considered it founded upon just principles, and that they ought not to lay all the onus, as they hitherto had, upon the backs of the directors.

After some discussion the resolution was unanimously carried, and a vote of thanks to the Chairman and directors terminated the proceedings.

SORTRIDGE CONSOLS MINING COMPANY.

A special general meeting of shareholders was held at the London Tavern, Bishopsgate, on Tuesday, —Mr. W. A. THOMAS in the chair.

Mr. COXON (the secretary) read the notice convening the meeting, which was in evidence of a requisition by several shareholders, for the purpose of rescinding a resolution passed at a general meeting held January 26, declaring a dividend of 1s. 6d. per share.

The CHAIRMAN said, before the business commenced he would remind them that no subject could be introduced except that for which they were specially convened. In consequence of observations made at the last meeting, Capt. James Richards had sent a letter in explanation.—The following letter was then read:—

Feb. 8.—I am in receipt of your favour of the 5th inst., conveying to me, by request of the committee, the information that a statement had been made to the meeting, to the effect that I had verified a report by my signature, although I had not been underground for some time previously, and that some very unpleasant remarks were made upon it. Before replying to this particular charge, it will, perhaps, be well for me to observe, that from the commencement I have paid most particular attention to the workings of this mine, and I cannot help stating that I had hoped the altered mode of conducting the different arrangements would be observed and appreciated by the company. My attendance at the mine is as regular and frequent as the workings require; and a single bargain or pitch is not set without being first seen either by myself or Capt. Cleino, who, when he has had an hour to spare, has given me the benefit of his great experience, and if anything particular occurs both of us inspect the mine at the same time. I find, by my memorandum-book, that I went all through the mine on Jan. 9, and set the whole of the bargains. On the 19th Capt. Cleino was down, and saw every point, and on Saturday, the 23d, I was myself again underground, and on the Monday morning wrote my report for the meeting to be held on the 26th, the day following. With this explanation I leave the matter in the hands of the committee, merely observing that after the great trouble I have taken to bring the mine to its present efficient state of working, and the interest I have taken in the affairs of the company generally, I was not at all prepared to hear that a charge had been brought against me, at a general meeting, of inattention and deception. As mentioned in my report, the cross-cut will be continued north to see if the lode is still standing in that direction.—J. RICHARDS.

The CHAIRMAN considered the letter quite a sufficient answer to the allegations made at that meeting, and it was a matter of great regret that such statements should be made against persons who were doing their best for the adventurers.

Mr. HALLERT contended there was no allegation against Capt. Richards. The question was, whether it was Capt. Richards's report, or merely that of Capt. Cleino?

The CHAIRMAN observed that the meeting was called in consequence of a requisition by parties holding more than 1500 shares, and being in accordance with the 11th rule the committee were bound to obey it. He had received a protest against the present meeting from Mr. W. P. Paul, instructed by Mr. Richards, of Devonport. According to a statement of accounts made up to this day, after leaving 3000, as a balance in the bankers' hands, they would only have 1081. 5s. 9d. towards the cost, which would be payable in March, and he objected to disposing of the property in dividends, and leaving the debts unpaid. The parties proposing the dividend had not the courtesy to tell the committee that they intended doing so.

Mr. MILFORD said the proposer was now absent, but he must on his behalf state, that on consulting a number of large shareholders it was considered advisable that a dividend should be declared.

Mr. HALLERT said it was generally understood that under the Cost-book System the shareholders had the management in their own hands, and such being the case he did not see why they should consult the committee as to whether they should propose a dividend. It was a subterfuge to state they had not sufficient money, as they had a bill accepted by bankers in London as good as cash. He considered it very unjust and un courteous to allow a resolution passed at a general meeting to be disturbed.

Mr. FARRIS, who seconded the resolution for a dividend, considered it unwise to call the present meeting, and that it was injurious to the concern.

The CHAIRMAN said they had only earned 115s. in six months, and if they divided 5000, they would be intrenching upon the capital. He concluded by proposing the following resolution:—

That, as it appears from the estimated prospective statement of account of the mine laid before the meeting, there is not a sufficient sum to pay the costs of the mine on March 10, after the payment of the dividend of 1s. 6d. per share, amounting to 9000, declared at the general meeting on Jan. 26, the resolution declaring the same be and hereby rescinded.

Mr. GARRISON seconded the resolution, upon the ground that if any adverse circumstances arose they would be compelled to make a call, and if the present dividend was paid the committee would be blamed for so doing. He felt convinced it was not desirable in any point of view to part with 9000, at the present time.

Mr. BOYNTON said he was in the happy position of agreeing with every one, but after the clear statement made by the directors, however repugnant it might be to rescind their former proceedings, he did not see how they could do contrary to the directors, as it would be a slight upon them; and he considered the value of the shares would be enhanced, as by taking the dividend they would gain 1s. 6d., and lose 5s. per share in the market price. (Hear.) As regarded the protest, he did not think that could be maintained, either in law or equity, as the same power that made the dividend could rescind it.

Mr. HALLERT remarked that this day three months they would have 25000. in hand.

The CHAIRMAN said they had to deal with the cash in hand, and not the prospective property of the company. He was again discounting bills to pay a dividend, and which could not enhance the credit of the concern.

An amendment was moved by Mr. ISLIP, and seconded by Mr. FARRIS, to the following effect:—That it is the opinion of the meeting it would be attended with much inconvenience to rescind a resolution of a general meeting; that the dividend be paid on the 20th inst., in conformity with the resolution passed at the general meeting.

After some discussion, upon a show of hands 15 were in favour of the amendment, and 7 against it. A poll being demanded, the numbers were—3535 votes against the amendment, and 1461 in favour of it: majority in favour of the original motion, 2474.

The committee, holding 740 shares, were present, but did not vote.

A vote of thanks to the Chairman terminated the proceedings.

THE CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA (LIMITED).

The fifth yearly general meeting of proprietors was held at the London Tavern, Bishopsgate-street, yesterday.—Mr. J. W. CARKE in the chair.

Mr. J. H. KOOK (the secretary) read the notice convening the meeting, and the report of the directors, from which the following is condensed:—

At the half-yearly meeting held on July 22 last your directors placed before the shareholders the report of Mr. Archibald Tregoning, on the Stamford Hill Mine. The plan then proposed has, after mature consideration and consultation with Messrs. Taylor and Sons, been slightly modified. It has been decided merely to sink a new shaft from surface to the 45, and then continue the present shaft on the course of the lode. This alteration will effect a considerable saving, both in time and money, as compared with the original proposal; it is ten to the same result—testing the mine in depth, and, moreover, possesses the advantage of proving the lode at every fathom. The machinery has been shipped in the "Boomerang" from Liverpool on Jan. 27. Mr. Tregoning left for Jamaica on Jan. 15, under engagement to visit and report upon mines belonging to other companies in the Island. In Oct. last your directors appointed him consulting mining engineer. During his present stay in Jamaica he will, in conformity with the terms of his appointment, inspect the workings at Stamford Hill, and adopt such mining operations as may be considered requisite for the proper carrying out of his plans. His experience will also be made available during the erection of the machinery. The accounts from the mine continue encouraging. The work of sinking and raising for the new shaft progresses as rapidly as the nature of the ground will admit.

The accounts for the past half-year have been made out and audited; they show a balance in hand, on Dec. 31, of £7232. 13s. 4d., of which 3106s. 6s. 1d. is in Exchequer bonds; 3000s. on loan; 219s. 1s. 10d. cash at bankers; and 419s. 5s. 5d. bills receivable, paid on Feb. 1.

A statement of accounts was exhibited, to Dec. 31, 1857, from which the subjoined is abstracted:—

Deposit on shares	£29,268 19 0
Calls received	5,945 0 0
Interest on loan, &c.	1,981 17 0
E. Thompson, rent, &c.	551 14 2 = £38,073 18 8
Preliminary mining operations	£ 2,000 0 0
Cost of working plant	1,574 1 3
Office furniture	223 6 10
Preliminary expenses	5,554 15 9
Working expenses, &c.	17,848 15 2
Office expenses, &c.	1,550 19 2
Stores account	2,202 7 2 = 29,349 5 4
Balance in favour of company	£ 8,723 13 4

Jan. 25.—Stamford Hill Mine: In reporting to you on the present occasion, I beg to say our progress in sinking the new shaft below surface since my last report has been most favourable; and during that period 2 fms. 4 feet, making the total depth to date 5 fathoms; the ground continues moderately easy for working, consisting of a light-coloured porphyry. It affords me no small degree of satisfaction to inform you we have just effected a communication by a small hole with the rise above the back of the 45 and the shaft sinking below the 35, and hope, if all be well, in about a week or ten days, to see the ground squared, and the men rising above the back of the 35 towards the shaft coming down from surface. I am glad to say our men, both English and natives, are working with vigour. At surface we are levelling ground in the side of the mountain, near the shaft, for engine-house, &c.—F. C. HARPER.

The CHAIRMAN, in moving the adoption of the report, said that at the last half-yearly meeting a scheme was proposed by Mr. Tregoning, which was laid before them, and although it was thought expensive, it was considered necessary to test the value of the property; but the shareholders were kind enough to leave that report to the directors, who considered it was their duty to consult other parties better acquainted with mining than themselves, and the directors had an interview with Messrs. Taylor, who had reduced very considerably the outlay suggested by Mr. Tregoning, whom they had appointed as consulting engineer, and as he had gone out to inspect

some mines in the neighbourhood they would have the value of his services. Messrs. Taylor considered it desirable that they should go on sinking the shaft, which would only take four months to prove the mine instead of three or four years, as suggested by Mr. Tregoning. It would be observed by the report of Capt. Harper that a communication between the 35 and 45 had been effected, which was of great importance in developing the mine. In reference to the accounts, it was most satisfactory to state that the calls had been remarkably well responded to, as there were only 900 shares in arrear, which must be forfeited, as the holders were insolvent or dead. He (the Chairman) considered this a test as to the opinion of the public of the undertaking; it was suggested that the English miners should be reduced. He would conclude by moving that the report and accounts be adopted.

Mr. GLADSTONE seconded the resolution.

Mr. HAYES wished to know how many English miners were at present engaged?

Mr. KOCK replied 15.

Mr. HAYES considered it a valuable suggestion that they should be reduced, because the more money they had the longer they would be in a position to persevere in the undertaking.—The report and accounts were then unanimously adopted.

Messrs. Carter, Gladstone, and Pearce, were re-elected directors, and Mr. F. O. TOMPSON a new director. Mr. W. Smith was re-elected auditor, and Mr. W. B. Watson in the room of Mr. J. E. Coleman, who had resigned. A vote of thanks to the Chairman terminated the proceedings.

LIBERTY MINING COMPANY.

A special general meeting of shareholders was held at the London Tavern, Bishopsgate, on Tuesday, —Mr. R. A. RIDDELL in the chair.

The SECRETARY (Mr. H. H. ROOD) read the notice convening the meeting.

The CHAIRMAN did not consider it necessary, in order to facilitate the business of the day, to read the correspondence which they had received from Mr. Conquest, extracts therefrom having been forwarded recently to every shareholder, and would, therefore, submit the resolutions it was proposed to pass—that the company be registered under the Joint-Stock Companies Act, 1856-57, under the title of the Liberty Mining Company (Limited); that the liability of the shareholders be limited; that the nominal capital of the company be £30,000, in 30,000 shares of 1s. each; that the preamble of the articles of association be agreed to; that the articles of association be agreed to; and that the directors be authorised to borrow not more than £2000, in less than 20% advances on bonds, with warrants of attorney attached to confess judgment in any of the courts of Virginia. He continued that they, the shareholders, would recollect that at the September meeting power was given to the directors to raise the sum of £2000, upon the security of bonds; but, owing to the state of the money market, nothing could be done; and that in December they were empowered to raise £1500, on such security. Since then they had thought over various positions, and had ultimately decided upon the plan submitted. He reminded them that there was £4500, owing to the directors, who proposed to accept payment, if it met with the approbation of the shareholders, by taking half the amount in preference shares and half in the bonds. This would make an additional £2000, bond debt; but, in the event of the mines being sold, the directors would come in for their portion, and the remainder stand over to some future occasion.

The CHAIRMAN having assented to this, a resolution was carried to that effect.

The articles of association of the limited company were then read and agreed to, and the resolutions were put seriatim, and carried unanimously.

THE CULCHOTHE COPPER MINING COMPANY.

A special general meeting of shareholders was held at the Guildhall Coffee House, Gresham-street, on Wednesday,—Mr. WARREN in the chair.

The CHAIRMAN said that the meeting was called in conformity with the Act of Parliament, which required all companies in the course of winding-up by appointing liquidators should, within 12 months from the time of passing such a resolution, call the shareholders together to explain the operations, and the reason for not completing the winding-up.

Mr. WEST (the solicitor) read a statement, from which it appeared that on Dec. 22, 1857, a special resolution was unanimously passed that the company should be wound up, and liquidators appointed. At that time the debts and liabilities amounted to about £5000., and, with a view of meeting pressing claims, the liquidators made a call of 3s. per share; and every effort was made to get it in, and they had so far succeeded that the debts were now reduced to about £1000.; and he (Mr. West) was of opinion that unless they were forced into litigation the whole amount would be paid within 12 months. Attempts had been made to bring the company under the Winding-up Act; first in the Court of Chancery, and afterwards in the Court of Bankruptcy. The Court of Chancery dismissed the case with costs, and the Court of Bankruptcy refused to entertain the application. The reasons for not being wound up at the present time was the non-payment of some of the calls, and the difficulty of disposing of the property, through the state of the money market.

A SHAREHOLDER wished to know the names of the parties who had not paid calls.

Mr. WEST considered it undesirable to mention names: they had taken law proceedings against one responsible party, and the trial would have been disposed of before the present time, but, at the request of the defendant, it was postponed upon his paying costs, which he had done, and it now stood for trial at the sittings after next Eastern term. If they had received the whole of the call, and sold the property, every debt would have been paid, and there would have been something to return to the shareholders.

Mr. NAPIER said it was notorious that they were in a good mineral stratum, and some day the property might prove highly valuable. The statement of Mr. West had been so highly satisfactory that he would move the following resolution:—

That the statement laid before the meeting was satisfactory, and that the meeting had every confidence in the liquidators, and they be requested to continue their services, and endeavour to bring the affairs of the company to a close as quick as possible.

Mr. COLEMAN, in seconding the resolution, said the mines in the immediate neighbourhood of the Culchothe property had turned out very valuable, and he would remind them that the directors were the largest shareholders, and at some future time benefit might yet result from the mines, after they had discharged all the liabilities.

The resolution was then carried unanimously, and a vote of thanks to the Chairman terminated the proceedings.

Mr. JAMES CROFTS sends us his usual weekly review, as follows:—

Some discussion is beginning to arise as to whether the late advances in tin have been of a perfectly genuine character; or whether, in fact, the smelters have not been raising the price for purposes of their own, the successful issue of which would be to bring larger quantities of ore into the market, and thus in due time to depress prices. The best informed on this subject, who are those less interested in the value of mining shares than of metals, incline to the above view of the case. But, independently of conflicting opinions on the matter, it is a certain fact that tin mine shares are less buoyant in the market than they were on this day week, although several of the first-rate mines are on the point of holding their quarterly dividend meetings. The public are interested in this question so far as to render it prudent to wait its practical solution, and in the mean time the general market had been well sustained both for copper and lead mines in the early part of the week, but leaves off with a reduction in this class of mines also; which, however, is not sufficiently marked to be noted, except in a report which professes to give the true state of things, and which may prove to be perfectly ephemeral. For ourselves, we are rather pleased than otherwise to see a slight check to the upward movement of prices, since it offers a safer opportunity to invest than would a continuous advance, and we, therefore, strongly recommend capitalists not to neglect the safe moment this state of things affords for investing. It may be mentioned that Vale of Towy promises a dividend of 1s. 6d. per share at the next meeting, in March; whilst St. Day United will declare 1s. per share on the 23d inst. Providence Mines may pay 4d. for the quarter, but at the meeting in May next probably 7d. or 8d. It would appear, therefore, that these individual concerns will give the highest range of dividends—20 to 25 per cent. per annum. Trewhay shares, which were, a fortnight or three weeks since, at 25s., after paying a dividend of 2s. per share, have fallen to 21s., the true cause of which are not very patent to the uninitiated, nor are they very complimentary to the judgment of those who had especially "recommended" these shares for investment. It is a question whether such events do not much retard the onward progress of mining, unless it could be shown that the fall in price was perfectly legitimate, unexpected, and unseen. The greatest advance in a share this week is at East Wheal Russell, the basis of which appears sound. Finally, it may be stated that the aggregate of business done has been very large, and a great part of the capital brought into the market has been the result of successful adventures on the Stock Exchange, more particularly in British railways and colonial companies, showing a considerable amount of success on the part of the public in the taking advantage, in a "double sense," of profiting by sale of stocks which have arrived at a high point, and investing in mines which are still in a state of transition between a low and a high one.

Messrs. Powell and Cooke communicate the following report:—

The market has shown continued buoyancy during the week, and a considerable advance has taken place in the price of several mines. This is only what we have anticipated in our previous remarks, in the columns of this Journal. In fact, it was not difficult to foresee that such a result would take place, seeing that the principal causes which brought about the depreciation in value of different mines have been removed. The money market being easy, and the standard for copper very good, together with the price of tin advancing, indicate a very prosperous period for legitimate mining enterprise. We would, however, add a word of caution to that which has already been given in this Journal. No doubt many new adventures will be brought on the market ere long, and while we have no desire to condemn or prejudge the minds of the public against them, it is to be hoped that proper steps will be taken on their parts to fully satisfy themselves of the legitimacy of such concerns, and the parties connected with them. If the ordinary care required in all matters of business be taken, we feel assured that the result of a judicious investment in British mines would not fail to give satisfaction to parties investing. Without troubling our readers to go further back than the commencement of the current year, we refer them to the Journal of Jan. 2, and since for a list of mines which we brought prominently before their notice. It will be seen that several of the mines named have risen 100 and others 25 to 50 per cent. in price; while in only two instances have our expectations not been realised—Wheat Killy (St. Agnes) and Calstock Consols. The future prospects of the mining market are very encouraging, and we believe that at no former period was a greater desire evinced on the part of the public to invest in British mines, both dividend and progressive. This is not to be wondered at, seeing that they pay from 15 to 20 per cent., while some of the latter class advance at the ratio stated above. The fear of liability we believe deters many parties from becoming shareholders in mines. There is not, however, so much cause for fear on this point as is often manifested; for no respectable broker or agent would recommend any mine to his friends unless he was quite satisfied of the legitimacy of its management, in which case the costs, &c., are equally divided at the usual bi-monthly and quarterly meetings. We would advise our readers still to make a selection of good mines for investment, as there is every probability of a very considerable advance in this kind of security. It being invidious to name particular mines, we refrain from naming those we most approve of, as offering the greatest advantages with the least amount of risk, leaving it to our readers to make a selection, by seeking the advice of their respective brokers.

Capt. Polglaze, of Bodmin, whose mining undertakings in Lake Superior are well known, and whose mineral and geological knowledge is highly esteemed in the county, has been appointed toller and mineral steward to the properties of the Right Hon. Lord Ashburton.

THE MINING JOURNAL.

LONDON AND NORTH-WESTERN RAILWAY.

The half-yearly meeting was held yesterday at the Euston-square terminus.

The MARQUIS OF CHANDOS in the chair.

The advertisement by which the meeting had been convened having been read, the minutes of previous meetings were submitted and confirmed. The report of the directors was taken as read.

The CHAIRMAN, in moving the adoption of the report, said—You have now, gentlemen, had before you for some little time, by the publication of the report and accounts, the results of the half-year's working. It is only necessary that I should give you some explanation on one or two points. The first has reference to that portion of the report which describes the decrease in the goods traffic. It is as well I should bring under your notice the fact that but little of that decrease is to be attributed to the result of any competition to which you have been subjected during the past half-year. I find that something like 44,000^t of the 50,000^t decrease in goods is distributed over no fewer than 33 stations. (Hear, hear.) So far from its having occurred between those large points at which we have been subjected to violent competition, the truth is that much, the larger proportion of it, is distributed over the various points and places on the line where you have not been subjected to any competition. (Hear, hear.) Therefore, you must not consider that decrease as attributable in any great degree to the effect of competition, but it is due rather to the stagnation of trade which has occurred so generally throughout the country. (Hear, hear.) As an instance, I might mention to you that of the decrease, no less than 4000^t, has occurred in traffic passing between Liverpool and Manchester, where you have not been subjected to any competition whatever. (Hear.) A number of your smaller stations show a decrease of from 500^t to 1000^t, the result of which is, as I have said, that 44,000^t out of 50,000^t, is spread over no fewer than 32 stations. (Renewed cries of "Hear, hear.") As your traffics and your receipts have been subjected, I have shown you, to some exceptional circumstances in consequence of the state of trade, so there have been, on the other side, some exceptional cases in the expenditure, which have apparently swelled the half-yearly expenses, but which are not strictly due to the half-year's working. I may mention, for instance, that we have been subjected to a charge of \$2000 spent in the extension and improvement of our signals, and in other small alterations absolutely necessary for the proper conduct of your traffic, and which sum has been wholly charged against revenue. The alteration in the circumstances of the property adjoining the line has in many cases obscured, or rendered less efficient, the signals, which have now made as serviceable as they possibly can be. This has not been a mere maintenance or renewal of the signals, but an increase and improvement of them. (Hear, hear.) In one case there has been an expenditure of 1000^t on the North Union line, for rebuilding three bridges, which were destroyed by mining operations under them, and in which case you might, as you will have done in former years, have purchased the minerals underneath them, and perhaps you might have been willing to grant a vote of capital for that purpose. We have thought, however, that these bridges ought to be rebuilt at the expense of revenue. (Hear, hear.) Immediately after the rain at Camden Town, the weight of trains thrown on several portions of the raised ground which had been formed at the original construction of the London and Birmingham line, caused a large portion of the retaining wall to give way, occasioning an expense of 1000^t to 2000^t for its replacement. Some other works, such as an additional platform at this station, and considerable improvement in the Chester station, have also been borne by revenue, as well as the exceptional expenditure of something like 12,000^t in the replacement of engines sold on the expiration of the contract with the Lancashire and Carlisle Company. (Hear.) I have thought it right before leaving the report to give you these explanations. It is right also I should carry on this report to the present date, as from its being issued some few days, it does not quite convey to you the latest position of our affairs. I refer more particularly to that portion of the report relating to the attempts made to prevent a competition, at low rates, for your traffic by the Great Northern and Sheffield Companies. Since our report was issued, I have been in expectation that I should be able at this meeting to announce that a competition at such excessively low rates would not have continued. We stand in the report that we had proposed to leave the matter of dispute which had arisen on the wording of the agreement to a referee, to be named by Mr. Denison or Mr. Chapman. Such offer of reference was not, however, accepted, but a minute was sent to us by their joint committee to this effect. On Feb. 17, 1858, it was—

"Resolved.—That, instead of entering into the differences which have arisen since the agreement was signed by Lord Chandos and sealed by the Great Northern Company on Feb. 2, 1858, this committee is ready to refer the document so signed and sealed to Mr. Bullar (the referee already agreed upon to act in case of dispute as to the legal form in which the heads of agreement, settled by all parties through the medium of the late Mr. Paget, on Jan. 21, 1858, at the Euston Hotel, should determine whether the heads of agreement of Jan. 21, 1858, authorised the London and North-Western Company to demand any restriction of the number of third-class trains, and so forth, to what extent; and shall alter the agreement so signed and sealed as he may see fit in that respect accordingly, and that all parties shall be bound by his decision, and shall forthwith seal the document as so settled by him."

"The joint committee, in passing the above resolution, rely that all outstanding claims and accounts between any of the companies shall be settled by the accountants, or disposed of by reference, as suggested to Lord Chandos by the late Mr. Paget, and, as the committee believe, not objected to by his lordship."

"The joint committee would also express a hope that the London and North-Western board, on the completion of the agreement, see their way to unite in bringing about an amicable termination of existing litigation, considering that the perpetuation of such differences must destroy that spirit of friendly co-operation, without which the agreement may fail to be as useful to the parties as it otherwise ought, and would doubtless be made."

"That minute, or the draft of it, was read over to myself and another of my colleagues, Mr. Clements, by Mr. Chapman, and I stated at once that I would accept the reference to Mr. Bullar.

"As to the two other points referred to, which I did not understand to be conditions, but rather suggestions, I could not give any reply, not knowing what accounts were referred to; but I stated on behalf of the London and North-Western Company that I was quite as anxious as Mr. Chapman could be to avoid litigation and dispute. I should regard this proposed arrangement as a stepping-stone towards a more complete settlement, and a stoppage of the expense, trouble, some litigation, and parliamentary contest on which we were about to enter. (Cheers.) It was distinctly understood by Mr. Clements (my colleague) and myself that the two latter suggestions of the minute were not to be made conditions on which was to depend the question of the reference to Mr. Bullar.

"After a meeting of the joint committee that minute was handed to us, and we were then told by the Sheffield representative that the minute had been passed on the faith that the latter portions of it also were to be adopted, but it was not even then put as a necessary condition of it. Although I thought the question of reference to Mr. Bullar was put in this minute in terms which might be considered not quite fair towards this company, and not quite correctly representing the position of the question; yet I felt that, in order to obtain a settlement of the difficulty that had arisen, it was right to accept that reference to Mr. Bullar, and in that view my colleague concurred; consequently the following answer was sent:—

"Observing, as rendered necessary by the language of the joint committee resolution of yesterday, that Lord Chandos's signature to the agreement was affixed only on the understanding that that document corresponded with what had been settled between the solicitors, his lordship, for the London and North-Western Company, accepts the reference to Mr. Bullar, which is proposed in the minute now under reply.

"Although not recognising any connection between the foregoing and the following matter, the London and North-Western Company will be ready at any time, as they always have been, to refer to the accountants of the companies, and, if needful, to arbitration, the settlement of any mere matters of account between the companies, but this company cannot recognise as being of that character claims raised by the Sheffield Company under the traffic agreement of July, 1854, which was terminated by them without the stipulated notice, and in respect of which they refused arbitration.

"Lord Chandos considers it desirable to record the fact that Mr. Paget never communicated to him any minute of the Sheffield board or company on any of these subjects; and that, in what his lordship has now stated with reference to them, he has repeated, in substance, all which he ever agreed to, or stated to that gentleman, or which that gentleman ever brought before him.

"The London and North-Western directors cordially unite in the hope expressed by the joint-committee, that on the completion of the agreement all parties may see their way, and unite in bringing about as speedily as possible an amicable termination of the existing litigation."

When that answer was sent I expected I should be able to report to you that you would not see competition at those rates which have been already announced as likely to be put in force; but late last night I received this answer:—

"Mr. Chapman and Mr. Hussey Pack remained in town, with authority to carry out the resolution of the joint committee, if accepted by the London and North-Western Company. They are, however, sorry to find that the London and North-Western Company decline to refer all matters in dispute to arbitration, and thereby practically refuse, while they profess to accept, the offer of reference to Mr. Bullar, which, by the resolution of the joint committee, was coupled with the simultaneous reference of the other matters in dispute; they, under these circumstances, can only refer the memoranda forwarded by the London and North-Western Company to the next meeting of the joint committee. They feel it necessary to protest against the version given in that memorandum as to the circumstances under which Lord Chandos's signature was affixed to the agreement, and to repeat that the late Mr. Paget was requested to present the minute of the Manchester and Sheffield Company to his lordship as the condition on which that company agreed to the enlarged term of five years, and other alterations; and that they had reason to believe it was communicated by him accordingly. Mr. Chapman, on behalf of his directors, wished it to be stated that they consider the arbitration of their claims under the agreement of 1854, not merely in a pecuniary view, but as involving considerations of honourable dealing, which they are anxious to submit to an impartial decision. In order to prevent any misunderstanding, it is assumed that all parties are in the interim at liberty to carry on the competition in any way they may deem expedient."

I have thought it right to carry on the report to this date by reading these minutes, and putting you in possession of what has since passed. Our position is now this—that we, having offered a reference of the dispute which arose as to the particular form of the agreement to any professional gentleman, or to any Member of Parliament who might be named by Mr. Denison, that offer not having been accepted, and an offer of a somewhat different nature to refer having been made to that which had been accepted by us, we are now told that it is not sufficient unless other questions and other conditions, not forming any part of the agreement, are included. I have felt it right to make this statement to you, to show you that, at all events, on our part we have not been anxious for unnecessary disputes, and not anxious for unnecessary competition. You will now, no doubt, have to encounter that competition. It will take place, but I doubt not that the results of it will be that out of such competition will grow a more lasting settlement than if you had now concluded an arrangement on the basis on which, for the purpose of preventing competition, we were willing to treat. I look forward with confidence to what will arise from that competition. It will subject you, and every other railway in the kingdom, I believe, while it lasts, to loss of profit and to additional expenses; but it will result, I think, in a more permanent, a more secure, and a more beneficial settlement for you as well as other companies. (Cheers.) The day is gone by when we can rely on complicated arrangements, built up and dependent on the supposition of the interests of every one company remaining the same from year to year. There are too many roads open now to enable a settlement to be made without so many parties being brought into them as to render it almost a hopeless task to attempt to keep the interests of all these companies in the same direction through a long series of years. I believe that a settlement will result from the competition forced upon us, in which you, relying not on such an agreement as I have referred to, but on the exertions of your officers and servants, and also relying on the good management of your line generally, and upon possessing,

as you do, the best line, it will eventually result in your carrying, at fairly remunerative rates, that traffic which is your due, and which will be far more secure to you under such conditions than if held subject to arrangements dependent on the interests of parties over whom you have no control. The only further remark I have to make to you on this report refers to the question of the amount of dividend proposed by the directors on the present occasion. Your directors have had that question under their deliberate consideration. It has been a subject of much discussion with them, and they have now decided on making a recommendation to you of a smaller dividend than possibly under some other circumstances they might have proposed, feeling that they have in making that recommendation to you discharged their duty by doing that which they conceive to be most conducive to the interests of the company. (Cheers.) His Lordship then moved the adoption of the report.

Mr. LOCKE (engineer), said he did not purpose to oppose the report, except as to the dividend; he was of opinion that the dividend ought to be made upon a division of profits fairly and legitimately earned, and therefore should move an amendment, that the dividend be at the rate of 5½ per cent., instead of 5, which would leave a surplus of 13,000^t, in hand.

Lord Chandos said that he did not think that the directors sufficiently interested themselves for the benefit of the proprietors by the extension of their means of traffic. Watford, for instance, was neglected.

Mr. DEAN was of opinion that nothing had fallen from the noble lord which offered any suggestions to the directors, except the formation of a small and useless line of railway.

Mr. BERNARD HARCOURT regretted the negotiation for arrangement with the Manchester and Sheffield Company had gone off.

Mr. HADFIELD, M.P., moved the appointment of a committee to meet a committee of the shareholders of the other companies, to endeavour to settle the disputed between the boards. On the motion being put, it was negatived unanimously.

On the amendment in relation to the dividend, the CHAIRMAN said he was informed by Mr. Collier, one of the auditors, that a dividend of 5 per cent. would leave a balance of 45,000^t; if 5½ per cent., 14,000^t; but if at 5¾ per cent., there would be a balance of 15,000^t.

The CHAIRMAN then put the amendment, that the dividend should be 5½ per cent.

On a show of hands being taken, the meeting appeared to be nearly divided. A poll was demanded. Result of the poll: For Mr. Locke's amendment, 349 votes. Against: Present, 1233; proxies, 5415 = 6550: majority against, 4211.

At the Madras Railway Company annual general meeting, held on Thursday (Major-General Duncashin in the chair), Mr. Walker, the managing director, read the notice convening the meeting, and the report, an abstract of which has already appeared in the *Mining Journal*, was taken as read.

The CHAIRMAN, in moving the adoption of the report, trusted that it would meet with the approval of the proprietors. The present state of the undertaking he considered satisfactory, and the future prospects encouraging and promising. The part through which the line runs remained undisturbed, and was altogether free from the calamities that had overtaken some parts of India. The line was opened to Vellore, a distance altogether of 81 miles, and it was hoped by the end of last year they would be opened to Gorriatium, 12 miles further, but last year the monsoon was so extremely heavy that it stopped the works for several months. The latest information they had received from their engineer was that he expected to complete the line to Vanlembadi, an important station 120 miles from Madras, by the end of this year, and as far as to Salem by the end of next year. The monsoon he had alluded to had tested severely the stability of the works they had finished, and as a proof of the way the work had been executed, not a single passenger train had been stopped during the continuance of the monsoon, reflecting the highest credit on Mr. Bruce, the engineer, and Mr. Fletcher, the traffic manager. Upon completing the railways in course of construction, the two presidencies of Madras and Bombay would have the advantage of such communication, and he was satisfied prosperity to the country could not take place without railway companies participating in the advantages.

Mr. MALCOLM LEWIS seconded the adoption of the report and accounts.

A long discussion ensued, in consequence of the accounts being audited by gentlemen provisionally appointed by the directors instead of the shareholders, and which resulted in the report being received and adopted, and the accounts received, subject to being audited by auditors appointed at the present meeting. Messrs. J. Walker, G. Norton, and J. A. Arbuthnot were re-elected directors; and Mr. James Thomson and Colonel John Thomas Smith auditors. A vote of thanks to the Chairman and directors terminated the proceedings.

A poll being demanded on behalf of Dr. Beattie, the meeting was adjourned until Thursday, to take the votes.

At the Seinde Railway Company third annual general meeting, held on Thursday (Mr. W. P. Andrew in the chair), the secretary (Mr. Burnell) having read the notice convening the meeting, the Chairman, in referring to the report (which had been circulated amongst the proprietors), observed that it was now more than two years since the Seinde Railway was linked with some of the most important undertakings in Central Asia to the sea. Although the report contained everything that the directors were in possession of, there was some information which he had lately received, and which further showed the opinion of the authorities there, as well as the capabilities and resources of their railway, &c. At Kurrachee, the depth of water was at first given as 17½ ft., but it was ascertained to be now not less than 26 ft., enough to float the *Leciasfa*. The advantages of having so good a harbour at the terminus of the railway must be apparent to every one, both for the purposes of landing the stores of the company, and also in developing the commerce of Upper and North-Western India, as well as enhancing the value and importance of their undertakings. The delay in the several surveys had not been without advantage. Messrs. Bray and Co. had contracted to complete the works in two years, with a consideration per week for every week under that time, and a fine for every week after that period, the contract being by a schedule of prices. He would now call for the Indus Steam Flotilla. At the last meeting, authority was given to raise capital for this company, but with the understanding that the undertaking was distinct, and which they would all know must be mutual dependence. The class of boats had been fully considered, and it was very satisfactory that the commission appointed in India did not materially differ in the description selected. In the Punjab Railway, a distance of 248 miles, there were scarcely any heavy cuttings; it was a most favourable line, and the survey was completed. Sir John Lawrence had recommended in the strongest terms the urgency of the completion of the works, and spoke highly of Mr. Brunton (their engineer) and staff during the late unpleasant times. They had been drilled twice a day, yet had performed the survey in the short space of seven months. Mr. Frere, the commissioner in Seinde, in his despatch to the Governor of Bombay, also states that the lines are of the greatest importance, both in a military and commercial point of view. The reason it was only a single line was that it was a through traffic, but in parts where the traffic was greater a double line would be made, as all the bridges were calculated for it. In reply to a proprietor, the Chairman said the reason why native contractors had been employed was because it had been thought advisable to conciliate as much as they could. They were a rich and influential class, and the contracts which they had undertaken had always carried out satisfactorily. The reason there was such a large balance in the hands of the East India Company was that they could not, by virtue of their dead, make any contracts without sufficient money deposited with them. The report and accounts having been seconded and adopted, Sir Herbert Maddock, M.P., in proposing the re-election of Messrs. Andrew and Borraldade, said that the former had succeeded in forming this company—a scheme the grandest of any in India: such zeal and energy as he had shown could not be surpassed. Mr. J. Brown seconded the resolution, which was carried unanimously. Major Moor was re-elected auditor. A vote of thanks to the Chairman and directors terminated the proceedings. The meeting having been made special, for the purpose of authorising the issue of 1,500,000 capital, in 75,000 shares, of 20^t each, for the construction of the Punjab Railway, upon which the Hon. East India Company have granted 5 per cent. interest on the usual terms, a resolution to that effect was passed, and the meeting terminated.

The South Yorkshire Railway and River Don Company meeting will be held on Friday: the report shows that the locomotive or train mileage over the line for the half-year ending Dec. 31 has been—By South Yorkshire engines 227,024 miles; Great Northern engines 1769; and Midland engines 15,552—total 244,546 miles, and the expense has been 10,350^t per train mile, including coke and other materials used in running, the repairs of the engines, wagons, and carriages, and the expense of the shunting. The coke and coal used for the engines have cost 2·50d. per train mile. These charges, as well as the traction of the coal carried on the South Yorkshire, has been rather less than in the preceding half-year. The stock consists of 16 engines, 23 passenger carriages, 12 vans, 82 goods and ballast-trucks, 40 coke, and 92 coal-wagons; the last averaging 8 tons each. The stock is in good repair, and has been adequate to the traffic of the past half-year. During the past year the total tonnage of coal carried over the railway and navigation has amounted to 1,310,020 tons, and this large traffic is steadily on the increase, with the additional facilities afforded to new markets. The railway and navigation have been maintained in good order and condition.

A large amount of business was done yesterday in Copiapo Extension Railway, and closed at 1/4 discount to par.

PORTRAY RAILWAY.—Mr. W. E. Newton has patented, for a correspondent, the constructing of the railway of two endless chains of short rails, joined together vertically and laterally, or horizontally, and working over square pulleys mounted on adjustable frames, and so arranged that as the engine is propelled along the rails are laid down in front, and form a continuous line for the carriage to travel over.

PREVENTING COLLISIONS ON RAILWAYS.—Mr. David Hope, of Bishop's Auckland, proposes to prevent collisions by greasing the rails; the wheels cease to bite, and the train only proceeds by its momentum.

IRON SHIPBUILDING.—Hitherto one of the primary causes which has retarded the progress of this important branch of industry has been the defective quality of some of the plates of iron which have been employed in the construction of these vessels, the difficulty having been to produce uniformly all through the plates. Great complaints have likewise been made of the architecture of these ships, the framework not being strong enough to support the plates. By Mr. John Clare's patent this is obviated, and strength as well as speed is given to the ship. There can be no question but that the construction of such vessels as will put us in communication with the Antipodes in a comparatively brief period. Had ships built on such a plan been available for use when the first intelligence of the Indian mutiny came to hand, how much disaster that has now taken place would have been avoided. It is to be regretted that at this present time both Lloyd's in Insuring, and the Board of Trade in granting certificates, are too lax. We have never advocated the too great interference of Government with private speculation and individual energy. The subject of iron shipbuilding is one of national importance, and the money would not be ill-expended, which, by the issuing of a commission, would elicit from business men, both in naval construction and the manufacture of metal, the desire to arrive at, and the necessity of, a further improvement. The introduction of ships built of the homogeneous metal, or cast steel, and their practical application, is looked forward to with great interest. This one constructed by Mr. John Laird for the Zambesi expedition is 100 ft. long by 8 ft. broad and 5 ft. deep, composed of homogeneous metal. With half the thickness of ordinary iron, these are said to be double the strength of a vessel constructed in the ordinary way. The boiler, which is made of side plates, will bear four times the amount of pressure required. It has been a matter of surprise that, while many trivial subjects are often under discussion at St. Stephen's, some independent Member has not brought this important national matter before Parliament. Mr. John Clare has had an interview with Viscount Palmerston this week, and it is anticipated that, from his lordship's well-known energy, some enquiry with regard to a practical result will be entered into, in order to test the merit of that gentleman's invention,—so that this important question may be solved in a way worthy the house of England in her maritime supremacy.

The English and Australian Copper Company have published the report to be presented at the ordinary general meeting on Tuesday. The quantity of ore delivered to the port by the South Australian Mining Association, from March to Oct., 1857, was 7244 tons 16 cwt., and the quantity of ore shipped to England since the last report has been 4949 tons. The quantity of ore consumed (smelted) from March to Oct., 1857, has been 4588 tons 12 cwt. The quantity of copper smelted at the works during the same period has been 1294 tons 15 cwt. 2 qrs. The copper shipped from South Australia for account of this company has been 231 tons 7 cwt. 0 qrs. 2 lbs. The total quantity of ore received from the South Australian Mining Association, from June 30, 1856, to June 30, 1857, has been 5947 tons. The total quantity of ore smelted at the works during the same period has been 6653 tons. The total quantity of ore sent away for shipment to England during the same period has been 1949 tons. The alteration which was brought about in the conclusion yesterday, and that item of expenditure will be made in the period of the year for holding the annual general meetings has been found to work satisfactorily. The books in London and Australia can now be balanced on the same day—viz., June 30, in each year, and the accounts will, it is fully believed, be fully arrived in good time to be presented at the annual meeting. The works have proceeded with great regularity during the whole of the year, from June 30, 1856, to June 30, 1857; during this period, for the first time, the furnaces have continued in work, with the exception of the necessary suspension for the purpose of taking stock, and for two weeks only at the end of the winter, when the fuel at the works was exhausted. The average portion of the winter the number of furnaces at work was for a short period reduced to 4; the average number for the whole year was 6½ furnaces per week. The cost of carriage by hired drays has been reduced to 30s. per ton during the past year, as reported by Mr. Hamilton, and a further saving has been effected in wages and cost of fuel. The quantity of ore sent away for shipment to England during the same period has been 15,776 lbs. 8 oz. FINANCE: Balance in hand, including mint certificates, £100,000.; the remittances to London, coupled with heavy payments for salt and steel, will account for this low figure.

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head and top drift that will about pay the expenses of working. The vein is now going similar to what it was further back, where you had good mines; and it is my opinion you will shortly have as rich a mine at Nether Heath as ever you had. The recent appearance of the vein indicates that a good mine is near. I attribute the want of the vein lately entirely to the cross vein which you met with near the centre of the poor ground you have opened. You have now got quite clear of this vein strength, and the vein beginning to have the same appearance it had when you had rich mines is a good indication that you are again near good ore.

NEW CROW HILL.—The men in the new stopes, east of engine-shaft, in the 23, have been cutting out ground, putting in stull, &c.; and, as far as the lode has been seen here, it looks well for blende, with some lead. The stopes west in the 22 are producing blende. The lode in the 15, west of the shaft, is large and very promising. The rods, &c., are put in order, and we are forking the water to the bottom of the mine, to enable us to determine the best points at which to cross-cut to the north side, between the 22 and 33, as last reported. We are also clearing and securing the west for the purpose of driving it. We are going on dressing blende, of which we have about 60 tons broken.—Feb. 13.

COPPER AND LEAD.—*J. Prins, Feb. 17:* Carr's shaft is sunk between 3 and 4 fms. below the 50, the ground in which contains much the same as it has been during the fortnight. In the 50 east we have met with a run of quartz, which has disordered the lode at present; we have, however, cut through it in one part, and shall soon see the lode on the other side of it. We have placed two men to rise a few feet behind the end to prove the lode, and to ascertain the depth of the ore. In the end of the 40 cross-cut the quartz branch named in my last report continues, but a larger quantity of water issues from it, and although the ground by the side of it is hardish compact slate, yet it is not unfavourable for mineral deposits. This end is being driven with a full number of men, and the lode will be cut as soon as possible.

NORTH BASSET.—*T. Glanville, Feb. 17:* There is scarcely any alteration in either our tail-work bargin since reported on last week. We sold, on Monday last, timber to the amount of £26. 5s. 3d.

NORTH FRANCIS.—*P. Hosking, Feb. 13:* The lode in the 48, east of Eale's shaft, is 3 ft. wide; a very promising lode, with a little black ore. The lode at Eale's shaft is 3½ ft. wide, with a little ore, but not to any value. The men from the 45 fm. level west have been rising against the winze sinking from the 35; they have hewed it, which will ventilate these levels. They will now resume driving the 48 west. The lode in the 36, west of Eale's shaft, is 3½ feet wide; a very strong lode, but rather poor at present. The tribute ground is much the same.

NORTH TAY.—*R. Williams, Feb. 18:* The prospects in the underground department are still very good. The lode in the stopes west of Gill's shaft is rich for tin; while that at the old whin shaft, 70 fms. east of the former, although not so good, is producing good paying stamp's work. The carpenters are busily engaged in the erection of the wheel, and other matters are proceeding as fast as circumstances will permit, and if the weather continues fine, we shall soon be working the stamps.

NORTH WHEAL EMMA.—*Jehu Hitchins, W. Goldsworthy, Feb. 18:* In the last two days' driving the lode in the adit east west has become harder, and the grey part unbroken; we have killed a blende having in a measure disordered it; however, there are still good gossan, spar, capels, and stones of ore, for about 2½ ft. wide—a kindly end.

Jehu Hitchins, Feb. 18: Since my last report the predictions I therewith ventured have been realized; every father driven proves the lode to be more and more promising and productive, having first cut a leader of copper ore 8 to 9 in. wide in fine and kindly gossan in the bottom of the adit level driving west, and not over 18 to 20 fms. from surface, now it is nearly 2 ft. wide and richer, yellow and grey ore, with the same gossan, and rising up with every prospect that we advance, we will hit it with, like in the Wheal Emma lode with which it is parallel and identical, also prove productive above. We have begun dressing, and hope to have piles of ore ere long for sale from driving the level, of which our prospects give promise. This lode altogether is very first-rate, and from this and what else I have seen since my connection with this locality, I am more than ever convinced that it is a proved productive mineral district.

NORTH WHEAL ROBERT.—*J. Richards, Feb. 18:* Murchison's Engine-shaft: In the 62 west the lode yields stones of ore occasionally. In the 52 west the lode though promising is unproductive. In the 42 west the lode is 3 feet wide, and worth 3 tons of ore per fm. In the 30 east the lode is 4 feet wide, and worth 2 tons of ore per fm. —Trial Shaft: In the 30 east the lode is unproductive. In the boundary winze, sinking below the 40 west, the lode is 3 feet wide, containing capels, quartz, and a little ore. There is no alteration in any other part of the mine.

OKEL TOR.—*W. H. Colliom, Feb. 18:* In the 65 east the men have cut the western wall of the lode. In the 50 east the lode in the end is improving. The leader part of the lode is about 1½ ft. wide, and continues to increase in size, it is composed of rich looking yellow ore, peach, and quartz. The killas to the south of the lode is full of branches of ore and peach; there is every appearance of there being a good bunch of ore in this end again shortly. From what can be seen in driving the 50 it would appear the south copper lode has formed a junction with the hard lode at this level, we, therefore, anticipated meeting with a rich lode as soon as the 65 reaches it. There is no alteration in the tribute pitches. A small cargo of mundic has been shipped this week, and we expect another vessel will take off about 120 tons more in a few days.

GOLA.—*J. B. Champion, Feb. 13:* We have scarce any change in the lode in the winze or the ground at the engine-shaft. I hope to get a few tons of silver-lead for market shortly.

PEDN-AN-DRE.—Capts. Carpenter, Delbridge, and Thomas, Feb. 13: In the 90, Martin's lode, east from the junction, the lode is from 2 to 3 ft. wide, with kindly appearance, and letting out a quantity of water, producing a little tin—not to value; the stopes behind this end, west from the junction, are worth from 40s. to 50s. per fm. In the 90 cross-cut north, on the cross-course, the ground is still very hard for driving, and yielding occasional stones of rich copper ore. The 40 south is holed to Bragg's shaft in the past week. We are clearing the stuf in the 65 for new bob-plat with dispatch. We sampled for, Jan. 15 tons 15 cwt., 2 qrs. 2 lbs. of black tin.

PEMBROKE AND EAST CRINNIS.—*J. Dale, G. T. Trewren, Feb. 16:* In the 162 cross-cuts, driving north and south from Reid's shaft, there is no alteration to notice since last report. In the 112 east, east from Smith's shaft, the lode will produce fully 1 ton of ore per fathm, of fair quality. In the 100 end, east from Smith's shaft, the lode is worth about 2 tons of ore per fm. In the winze sinking in the bottom of this level the lode will produce fully 1½ ton of ore per fathm, of fair quality. In the stopes in the back of the same level the lode is worth 1½ ton of ore per fm. In the winze sinking in the bottom of the 90, east from Smith's shaft, the lode will produce 1½ ton of ore per fathm. On Monday, the 15th inst., we sampled 150 tons of ore. Ground driven during the week ending Feb. 16th:—The 162 cross-cut south 4½ ft. ground favourable. The 162 cross-cut north 5 feet, the ground is congenial for mineral. The 112 end driven 5 feet, looks well for further improvement. The 100 end driven 5 feet, with promising indications. The 100 winze sunk 4 feet, and continued to look well. The 90 winze sunk 3½ feet, of a promising character.

J. Dale, Feb. 17: Since we sent off our report yesterday, we have met with a great improvement in the 112 east; the lode is worth fully 15s. per fm., in beautiful ground, and fine stones of ore.

PENCORSE.—*H. B. Gross, Feb. 9:* Friday last being our monthly setting, the following tribute bargains were set, as likewise tribute pitches:—The 45 fm. level to drive east of the east shaft by six men, 8 ms. stent, or the month, at 40s. per fm., and 10s. per ton for the blende, with the standard tribute for lead and copper—40s. per ton for lead and 20s. for copper, the men paying all cost to surface; the lode here is 2 ft. wide, composed of sugary spar, spotted with lead and copper ore, worth from 1 to 2 tons of blende per fm.; this is looking more promising than in the levels above, and I should recommend the 55 fm. level to be proceeded with at once, to prove this shoot of ore in that level, where I think it more probable to be found than in the levels above. The 20 to drive east of engine-shaft by two men, part of the lode, 6 ms. stent, or the month, at 30s. per fm.; this is the place I before called your attention to, and from what I can see the main part of the lode is in this place. The pitch in the back of the 6 fm. level by two men, at 18s. per ton. A pitch in the back of the 45, west of Rollacott's shaft, by two men, for one month, at 18s. per ton. A pitch in the back of the 20 fm. level, east of east shaft, by three men, one month, at 20s. per ton. The lifting, landing, sawing, and whim-drawing without any alteration to notice in price. We have commenced to weigh in the 90 tons for last month, which will exceed my expectations. We have now on the floors 30 tons dressed, and about 20 tons more to dress, that was at surface before setting-day.

PENHALDRARVA.—*Jas. Pope, Feb. 11:* I beg to hand you a short report of this mine, as we have an improvement this day. The 10, north of engine-shaft will produce 1 ton of lead per fm. Vigor's winze, sinking below adit, will produce 1 ton of ore per fm. It should also be borne in mind that this winze is before the end about 7 fms., and we have every reason to expect a continuance of this bunch for a great length.

T. Hodges, Feb. 17: I beg to inform you, the engine-shaft is about 8 fms. below the 10; the lode producing good stones of lead and blende, with a very promising appearance for further improvement. The 10 north will produce 2½ ton of lead and 1½ ton of blende per fm. The stopes north of Sandow's winze will produce 2½ ton of lead per fm. Vigor's winze is below the adit 5 fms. 3 ft.; the lode will produce 1 ton of lead per fm. Other parts much the same as last reported. In consequence of the improvement in the 10 we shall have 12 tons of lead by the end of this month.

POLBREKE.—*Feb. 13:* We have taken down the lode to-day in Doreas's shaft, for about 3 ft. high, but it is not so good as when taken down last week; it still maintains its size, and is still a good lode, but not so rich as it was. The lode in the bottom of the shaft is now worth more than 40s. per fm. We call this a fine lode, being so shallow, and in such a kindly piece of ground. We weighed the best work raised from the shaft, in sinking the last 2 fms., which is upwards of 4 tons, worth full 12 cwt. of black tin to the ton, this with the other work will make 3 tons of tin. This shows the bunch of tin we have sunk through to be worth 100s. per fm., and this estimate is not above the mark. There has not been any lode taken down in the 22, east of Doreas's shaft, since my last letter. Tregay's lode in the 22, west of the engine-shaft is small, and the ground hard, but we expect better ground in this end soon from the appearance of the ground gone down below the 12. Since the heavy rain on Tuesday last we have had six heads working at the stamp, at full speed, so we shall soon get about some tin. The best work from shaft we shall rush dry.

PROVIDENCE.—*A. Anthony, Feb. 17:* The lode in the 75, east of Higgs's shaft, is 2 ft. wide, worth 50s. per fm. The lode in back of the 75 east is 4 ft. wide, worth 130s. per fm.; the stopes under this pitch is 4 ft. wide, worth 50s. per fm. The cross-lode stopping in back of the 75 east is 6 ft. wide, worth 70s. per fm. The lode in bottom of the 65 east is 3 ft. wide, worth 30s. per fm. The lode in the bottom of the 65, south of Comfort lode, on a limb of the carbons, is 15 in. wide, worth 50s. per fm. The stops in bottom of the old carbons is 2 ft. wide, worth 8s. per fm. The lode in Dunston's shaft is 18 in. wide, worth 5s. per fm. The lode in the 35, east of Dunston's shaft, is 3 ft. wide, worth 5s. per fm. The lode in the 12, east of Dunston's shaft, is producing a little tin.

BESPREYN.—*Wm. Tregay, Feb. 18:* The engine-shaft is now down 2 fms., 4 ft. below the bottom of the 16; the uncovering of the bottom is showing a very good lode all along, I do not see, however, but that that near the shaft is as good as anywhere else. The tributaries are working with spirit and are getting good wages; most of their ore for the present and past month has been left underground waiting for the horse-whim to haul it; now that is up I hope soon to ban, dress, and have it got ready for sampling, with that already dressed and dressing.

RIVER TAMAR.—*John Cook, Feb. 15:* The sinking of the engine-shaft proceeds very satisfactorily.

ROSEWALL HILL AND RANSOM UNITED.—*P. Roach, Feb. 17:* Since Feb. 10 we have cut down and completed the engine-shaft 3 fathoms under the 10, and forked about 5 fathoms under this level. Our forking has been much impeded by the late heavy falls of rain. The adit not yet being completed through the mine, I have this day been through the 10 fm. level, so far west as the old sump-shaft, which is full at this level, and how far above and below is not yet to be ascertained. The level in this part is much the same as that I reported last week, not leading to any un-wrought ground.

ROSEWARNE CONSOLS.—*J. Richards, Feb. 18:* Yesterday being our pay and setting day we set the following bargains:—The 20 to drive east of the engine-shaft by eight men, lode 1½ ft. wide, worth 1½ ton of copper ore to a fm.; we have 2 fms.

how to drive to get under the winze, and then we shall commence to drive. The same level, east of the shaft, to two men, at 15s. per fm., 5 fms. west; lode 2 ft. wide, with stones of ore. The 10 to drive west of the cross-cut, to two men, at 14. 10s. per fm., 5 fms. east; lode 2 ft. wide, tribute ground. The same level, to drive east of the cross-cut, to four men. A winze to sink under the 10 to four men, at 14. 15s. per fm., lode 2 ft. wide, worth 1 ton of ore per fm. Set the shaft to sink on the north lode, under the 10, to two men, at 24. 10s. per fm. A new shaft to sink from surface on the adit to four men, at 15s. per fm. Other works progressing satisfactorily.

J. Richards, Feb. 16: The winze sinking under the 10 is grey, and the lode is improved, worth full 3 tons of copper ore per fathom, and also the 20 east, east of the engine-shaft, is improved, worth from 1½ to 2 tons of copper ore per fathom. I have suspended this end to day, in consequence of the water injuring the black ore; I expect we shall be obliged to suspend this end for a fortnight. To-day I have placed the shaft to cut a plat in the 20, and as soon as the same is completed we shall resume sinking the engine-shaft with all speed. The 20 east, west of the engine-shaft, is improved for ore, and also the 10 west.

ROUND HILL.—*J. Kneebone, Feb. 17:* We have resumed driving the 52 south; we have not yet taken down any lode. The lode in the 49 north has made a split, and is at present small, yielding 10 cwt. of ore per fm. The lode in the 49 south is 3 feet wide, and will yield 30 cwt. of ore per fm. The stopes below the 30, south of Matthews's winze, is without alteration since last report.

SITHNEY WHEEL BULLER.—*S. J. Reed, Feb. 15:* There is no change to notice in the 50, east of cross-cut—driven 4 ft. 6 in. in the past week. In the cross-cut north, the adit, we have driven 6 ft. We are now engaged clearing up a winze in the bottom of the adit level, where the ancients, no doubt, had considerable quantities of water in them, as by drawing out the water we found the lode had been worked on to a great extent.

I expect when the winze is firmly secured, and the clearance to the bottom effected, we shall find some ground to lay away. The ground is so well drained by the workings in the western part, that we find no difficulty in keeping out the water at this point, and I think we can sink a good many fathoms deeper.

SORTRIDGE CONSOLS.—*J. Richards, Feb. 18:* Hitchins's engine-shaft is in regular course of sinking below the 74; the lode is 2 feet wide, and yields occasionally good stones of ore. Hitchins's engine-shaft: In the 74 east the lode is unproductive. In the 74 west the lode is 2 feet wide, composed of capel, mundic, quartz, and a little ore. In the 62 east the part of the lode being carried (4 feet wide) yields a little ore occasionally. In the 62 west the lode is promising, being composed of capel, mundic, quartz, and a little ore. In the stopes in the bottom of the 50 fm. level, east and west of Crossman's winze, the lode is worth 3 tons of ore per fm. The lode in the stopes in the back of the 50 west is worth 3 tons of ore per fm. The rise in the back of the 50 west is communicated with the 49 above; the lode at the point of communication is unproductive. In the 50, east of the cross-cut, on the south lode, the lode is 18 in. wide, and contains quartz, mundic, flookan, and occasionally small stones of ore. In the 49 cross-cut north, west of the cross-course, nothing has been met with.

SOUTH BEDFORD CONSOLS.—*James Phillips, Feb. 16:* The lode in Red Whim shaft is 3 ft. wide, producing good saving work. In the 63 east the lode is 2 ft. wide, yielding saving work; in this level west the lode is 2 ft. wide, producing 1 ton of ore per fm. —South Lode: In the 36 east the lode is 3 feet wide, yielding saving work; the stopes in the back of this level continue to yield 1 ton of good ore per fm. The lode in the winze sinking in the bottom of the adit level worth 1 ton of ore per fm.

SOUTH CARN BREA.—*T. Glanville, Feb. 13:* We have intersected the lode in the deep adit south of the engine-shaft, and cut it about 2 feet from what can be seen there is copper and tin. I shall be able to see more of it in a few days. To-day being our monthly tail-work setting we have set six men to cut through the lode, at 12s. per fm. The 68 to drive east of the flat-rod shaft by six men, at 8s. per fm.; lode worth for tin 20s. per fm. The 58 to drive west of the flat-rod shaft by six men, at 8s. 10d. per fm.; lode yielding stones of ore, but not to value.

SOUTH DOLCOATH CONSOLS.—*Wm. Roberts, Feb. 16:* The lode in the 45 shaft is suspended, and the pumpwork is in complete order, and are now sending on the 65 with all speed. The lode in the 45 has not been very productive for tin or copper in the last few weeks. We have risen about 7 fms. towards the new shaft (sinking from surface), but have been prevented sinking for several days, the late rains having thrown down much water; however, I hope we shall resume sinking again in a few days. We calculate sampling a little parcel of copper ore in about a fortnight. We have discovered another lode at surface, about 40 fms. to the north, it appears to be a promising copper lode; we propose sending a cross-cut to it in the 45, when the new shaft shall be communicated.

WEST ROSEWARNE UNITED.—*Wm. Richards, Feb. 13:* The 50 cross-cut, towards the lode, is driven 4 ft.; set to eight men, at 9s. per fathom. The 50 west is suspended, and the men put to sink a winze in the bottom of the 20, to ventilate the lode. The 50 east is suspended, and which is set to four men, at 5s. per fathom. The 30 east was driven last month 4 fms. 3 ft. 3 in.; the lode is 3 feet wide, but not containing much ore; this level is extended so far east that it is necessary to get a winze down from the 20. The end is set to be driven at 3s. 10d. per fm. to four men.

WEST SHARP TOR.—*W. Richards, Feb. 13:* The part of the lode being cut into in the cross-cut north in the 70 east, is composed of hard quartz and capel, spotted with mundic and copper ore; the water is stronger than it has been. The part of the lode being cut into in the cross-cut, towards the 50 east, is composed of hard quartz and capel, spotted with mundic and copper ore; the water is stronger than it has been. The part of the lode being cut into in the cross-cut north in the 70 east, is composed of hard quartz and capel, spotted with mundic and copper ore; the water is stronger than it has been.

WEST WHEAL TREVELYAN.—*J. D. Osborne, B. Gundry, Feb. 13:* We have not made much progress this week in sinking Cater's shaft, the men being engaged in collaring up the shaft. The adit cross-cut towards Cater's shaft is driven 9 fathoms from the main adit, and is progressing satisfactorily.

WHEAL ADDAMS.—*R. Moore, Feb. 18:* In my last I stated we had broken some fine stones of silver-lead on the western ledge going south at the 15. I find the size of the lode to be from 3 to 4 ft. wide, composed of jack, silver-lead, mixed with mundic, nearly all the cleavage of the lode is quite green with sulphate of copper; some spots of copper ore are to be found in the stones. At this point I am still clearing the level south in order to see this lode, which is standing, and to drive the cross-cut east to reach the lode from which Tonkin broke so much copper ore under the former company's management. Owing to the whim being not sufficiently kept at work for the want of horses, I have not cut the western ledge going south at the 23 as yet, but am getting near the point where I expect to find the lead coming out of the enu. The end going south at the same level on the former company's western ledge, has not as yet reached the point south, where I expect to find the lead coming out from the level above, however, I hope to do this shortly if we can keep away the stuff. On Saturday next I expect to set many pitches above the 15, as well as under. The mine looks well as far as it is laid open. I have broken some stones to-day on the western ledge in the 15, very rich in its nature, which I believe to be grey copper ore, antimony, and silver-lead mixed, just of the same description as Wheal Exmouth samples. No. 1; this I must have assayed shortly. I hope to sample 50 tons of blende on Monday next.

WHEAL ARTHUR.—*T. Carpenter, Feb. 15:* In the 50 west, on old lode, and the lode discovered in the 50 cross-cut south, there is no change since last report. In the cross-cut south in this level we expect to intersect the great south lode previous to the general meeting. The lode in the 40 west and adit west continues very kindly, but is not yielding ore to value. The flat-rod shaft is down 6½ fms. below the 20. The construction and erection of machinery for draining and working the eastern old mine are proceeding rapidly, and we shall endeavour to get the water out of the 20 before the general meeting, and hope to set several pitches in that level.

WHEAL CONSTANCE.—*A. Cundy, Feb. 12:* We have opened on the north lode in the 18 about 22 fms.; the lode through will average 4 feet wide, composed of quartz, lead, and mundic. East of shaft we drove through ledge ground for about 4 fms., to ascertain the character of the lode, and to see what water there is under the ledge, and to drive the cross-cut east to reach the lode from which Tonkin broke so much copper ore under the former company's management. Owing to the whim being not sufficiently kept at work for the want of horses, I have not cut the western ledge going south at the 23 as yet, but am getting near the point where I expect to find the lead coming out of the enu. The end going south at the same level on the former company's western ledge, has not as yet reached the point south, where I expect to find the lead coming out from the level above

ca, and evidently have returned large quantities of tin above the adit, but have not done much if anything below that point; it appears that the whole of the lodes are forming a junction in going east. Our stamps are in good order, and are dressing for another sampling, which, if the weather proves favourable, I hope to sample in about a month.

WHEAL RUSSELL.—A. Barratt, Feb. 18: We continue to drive the 74 cross-cut south of Matthew's shaft, but have not intersected the south lode as yet; the branch of ore referred to in my last is still holding on, worth at present nearly $\frac{1}{2}$ ton of ore per fm. In the 62 fm. level, east of Matthew's shaft, we have driven south on the cross-course since last report, but have not met with the lode. In the back of the 37 fm. level, over the slide, we have still a good lode, worth from 3 to 4 tons of ore per fm. The pitches are looking much the same as when last reported. We intend to sample on Friday, the 29th inst., 60 tons of ore.

WHEAL TEHDY.—D. Lanksbury, Feb. 17: Last Friday being the twelfth setting, I beg to inform you the following.—The engine-shaft is sunk 5 fms. 3 ft. below the 50, west to mine level at 502 fm. In the 60, driving west from the engine-shaft, on the caister, the lode is 1½ ft. wide, worth 1½ ton of ore per fathom; set to four men, at 4½ per fathom. In the same level, driving east, the lode is 2 ft. wide, and poor; set to four men, at 6½ per fathom. In the 60, driving south from engine-shaft, set to six men, at 3½ per fathom. In the 50, driving east on the caister, the lode is 1 foot wide, with stones of ore; set to four men, at 6½ per fathom. In the 60, driving north from the north lode, set to four men, at 8½ per fathom. In the 70, driving north; set to four men, at 5½ per fathom. In the 70, west to the winze sinking below the 40, east from the western shaft, the lode is 2 ft. wide, producing stones of ore; set to four men, at 5½ per fathom. The 50 we have suspended for the present; against the winze, from the 40 fm. level, is holed. The 50, west on the tin lode, is stopped for the present, and I shall set the lode which is discovered in the back on tribute if possible.

WHEAL TRELAUNY.—W. Jenkins, W. Bryant, Feb. 18: Smith's engine-shaft is sunk 5 fms. below the 142. The lode in the 142, north of Smith's shaft, is 2 ft. wide, and worth 15½ per fm.; in the same level south it is 2 ft. wide, and worth 10½ per fm. In the 133 north it is 3 ft. wide, and worth 10½ per fm.; in the same level south it is 3 ft. wide, and worth 6½ per fm. Chippindale's shaft is sunk 2 fms. 1 ft. below the 130, the lode in which is 3 ft. wide, and worth 9½ per fm. In the 130, north of Chippindale's, it is 3 ft. wide, and worth 12½ per fm. In the 108 north it is 2 ft. wide, and worth 8½ per fm. In the winze sinking in the bottom of this level it is 2 feet wide, and worth 12½ per fm.—South Mine: We have intersected the lode, south of the slide, in the 142, south of Trellawny's shaft, it is 1 ft. wide, and worth 7½ per fm.; in the same level north we are driving in kilns by the side of the lode. In the 130 south it is 3 ft. wide, and worth 10½ per fm. In the 107 north we are driving by the side of the lode. The stopes and pitches are producing much as usual. We sampled on Saturday last 77 tons (computed) of best quality lead ore, for sale on 20th inst.

WHEAL TREVLYAN.—J. D. Osborn, B. Gundry, Feb. 18: Watson's engine-shaft is sunk 4 fms. 3 ft. below the 50; ground more favourable for sinking. The cross-cut driving in the 50, towards Richard's tin lode, is more favourable for driving. There is no alteration in other parts of the mine since last report.

WHEAL UNION.—T. Gianville, Feb. 9: South Lode: The 20 is extended 30 fms. west of the cross-course, the lode on an average 3 ft. wide, composed of spar, intermixed with yellow copper ore; in the present end the lode is yielding 1 ton of ore per fm.; 25 fms. behind the present end a tonne is down 4 fms., the lode is 1 ft. wide, composed of spar, intermixed with copper ore, and yielding about 1 ton of the latter per fm. The 30 west is 32 fms. behind the 20, there is now about 2 fms. to drive to get under the point where the lode is first seen west of the cross-course. The 20, east of the cross-course, has been driven 20 fms. through the ground, worth on an average 20½ per fm. In the present end the lode is worth 20½ per fm. In the bottom of the level, 10 fms. behind the present end, we have a pitch working at 6s. tribute, and the lode worth at least 40d. per fm. The 30 east is still driving on the cross-course, this end is 20 fms. behind the point where the shoot of tin is first seen in the 20, and I think we may reasonably calculate on a continuation of the same run of ore ground when the 30 is brought forward. The western shaft is down 14 fms. below the adit level, the lode in which is 4 ft. wide, composed of spar, mixed throughout with copper ore.—North Lode: The 20 is extended 6 fms. west of the cross-course; in the present end the lode is 3 ft. wide, composed of spar, and worth about 20 fms. to drive to the 30 cross-cut (of the north of the engine-shaft) to intersect this lode, where I have not a doubt but that we shall find a course of ore.—Turnpike Lode: The 20 is extended 18 fms. east of Moyl's shaft, the lode on an average 2½ ft. wide, composed of spar mixed with copper ore. It is my opinion that the lodes we are now opening on, when seen at a deeper level, will yield an immense quantity of copper and tin ores.

WHEAL UNITY.—J. Vivian, Feb. 15: We have taken down the lode at the flat-rod shaft, which is 2½ feet wide, composed of grey and yellow copper ore, with spar, &c., altogether of a very kindly appearance, and worth about 15d. per fathom. The sinking of the shaft is again resumed, and now down 3½ fathoms under the 40. In the 40, west from flat-rod shaft, the lode is 2 feet wide, kindly, and opening tribute ground. In the same level, east of ditto, the lode is 1½ foot wide, and worth from 8½ to 10d. per fathom. No. 1 shaft is sunk about 3 fathoms under the 30, where the lode is 2 ft. wide, and worth about 10d. per fathom for copper ore. In the 30, east of No. 2 shaft, the lode is 1½ foot wide, and producing a little copper ore. We have suspended the 19 and 10 east, and put the men to sink No. 1 shaft, which we hope to hole to the 40 granite setting-day.

WHEAL WREY CONSOLS.—P. Clymo, Jan., W. Hancock, R. Roskilly, Feb. 18: The engine-shaft is sunk 7 fms. 2 ft. under the 64. The lode in the 64 north is 4 feet wide, producing ½ ton of lead per fathom; in the same level south it is 3½ ft. wide, producing 6 cwt. of lead per fm. In the 54 north it is 5 ft. wide, producing 6 cwt. of lead per fm.; in the same level south it is 3½ ft. wide, producing 8 cwt. of lead per fm. In the 33 north it is 1½ ft. wide, producing 3 cwt. of lead per fm. The stopes and pitches have improved since the last report. We sold, on Feb. 5, a parcel of lead ore, computed 42 tons, to Messrs. R. Michell and Son, at 15d. 15s. 6d. per ton.

WHEAL ZION.—J. T. Phillips, Feb. 17: In the 50 west the north lode has a kindly appearance; we have two small regular leaders of good ore work. The ground-surface hard for driving. The 65 cross-cut north is not yet into the lode, as we expected last week. The 50 west on this lode is at present poor. The 30 west continues kindly, with occasionally a little copper ore. In the 65 east the lode is rather disordered, mixed with branches of quartz and mica.

WILLOW BANK.—J. Sanders, Feb. 15: Our operations at present being confined to sinking the boundary shaft there is nothing new to report.

NICKEL AND COPPER MINES OF PENNSYLVANIA, U.S.

THE GALT NICKEL AND COPPER MINES, IN LANCASTER COUNTY.

These mines are situated near the summit of the Octorara Hills, about three miles south of the Philadelphia and Columbia Railroad, in a very healthy, salubrious district, which has attracted considerable attention of late, from the fact of the United States Mint being supplied with nickel from them for the manufacture of the new cent.

On visiting the mines, by the politeness of Capt. Doble, the sub agent, I was shown the underground workings, and afforded considerable important information. The engine-shaft is 23 fms. deep, sunk on the lode, which is vertical from surface. There is a 10 fathom level, extended about 50 fms., at which point the lode is split into three or four parts. About 16 fms. east of shaft is a large cross-course, 23 ft. wide, composed chiefly of sulphure of iron and antimony, bearing nearly north and south. East of this are a number of fugitive veins in mica schist, containing black oxides and yellow sulphure of copper, but as they approach the pyrite rock they dwindle away, or change into quartz veins. Here, I am informed, the mine was first opened 125 years ago, and worked for copper ore by two companies in succession, but proved a failure for want of machinery and means to properly open the concern. Immediately below the 10 fm. level both the cross-course and the lode west of it changed into sulphure of nickel; and at 16 fms. deep the lode, bearing north-east and south-west, became concentrated into a mass of nickel ore 30 feet wide. It contained a considerable quantity of hornblende at that depth, as the ore required to be crushed and washed to make it marketable. The hornblende diminishes in depth, and the ore are so impeded that no more than about 20 per cent. of what is now raised requires washing. On the north part of the lode, for about 7 ft. wide, there are small veins and pockets, or bunches, of yellow sulphure of copper, which yields from 10 to 15 per cent. pure copper. I noticed that wherever these copper veins occur there are small strings of quartz, sometimes associated with mica-schist, and the indications between the beds, which are sometimes very open, contain cinnabar. The indications generally would warrant the expectation of large deposits of copper in this lode at a greater depth.

There is a level extended west on this lode, at 21 fms. deep, 10 fathoms of which, with the 15 fm. level east of shaft, exposes the lode at that depth about 25 fathoms in length; it yields about 18 tons of ore per cubic fathom, equal to 60 tons of nickel ore to each superficial fathom of the lode. The rock is very hard for splitting, but on account of its great width, Capt. Doble informs me that each man can produce about 20 tons of nickel ore per month on an average. This lode is explored nearly 100 fms. in length, to a depth of about 60 feet, by trial shafts, and has a similar appearance at every point. About 15 fms. north of this is another parallel lode, explored for about 150 fms. in length; like the former, it abounds with mica-schist and black oxide of copper on the backs. The deepest shaft sunk on it is 70 feet, where there is a coarse of sulphure of nickel and copper ore; it underlies about 43° north, and is very promising for copper ore, although it is probable it will produce more nickel ore near the cross-course. There are strong indications of other parallel lodes, but the company have, very prudently, concentrated their energies to the development of the main lode in question, which appears to be the champion.

I estimate the nickel ores now discovered to be at least 100,000 tons; the produce at the mines at present is about 200 tons of nickel and 10 tons of copper ore per month. There are ten miners employed, and eighteen surface hands, including mechanics. The mine is now in a condition to produce from 500 to 600 tons of nickel ore per month, and by opening one or two working shafts more, I cannot see why from twice to three times that quantity cannot be produced by the immense resources explored, together with what must be laid open by sinking deeper (for it is still improving as it goes down) gives a certainty of immense returns for a long series of years.

The concern is commanded by two steam-engines; one a 35-in. cylinder Cornish pumping engine, with one of West's perpendicular boilers, which is the most economical I have ever seen for the consumption of anthracite coal; the other is a 25-horse power high-pressure engine, and is applied to hoisting and crushing the ores; these apparatus are very complete. The ore is landed into an iron tram-way, and conducted to the dressing-floor, which, with the floors and other conveniences, are very judiciously arranged; the ores are then broken into lumps of from 1 to 10 lbs. in weight, for the purpose of roasting; the dirty portion and the copper ores are crushed, and then washed by the jiggling process. There is a smelting company established about half a mile from the mine, who purchase the ore from the mining company, and concentrate it into what is called "nickel matt"; this is again dissolved by retifiers. The ores are first roasted in large kilns, which contain from 60 to 70 tons each; this requires but little fuel, for, after being ignited, it supplies its own combustion; by adding fresh fuel occasionally, I am told it will give out large quantities of gas for thirty days. No use is made of these gases, but it occurs that they might be profitably used, either by the extraction of sulphur or the manufacture of sulphuric acid. The ores, after being roasted, are melted, in a blast furnace.

The geological formation is of the metamorphic series. Trap dykes and ridges of trap rock are prominent at the surface, with intrusions of syenite and crystalline hornblende; veins courses are also visible, but the hornblende in the crystalline form is most prominent, and the formation, in a metallic point of view, has all the associations desirable for a great mining district, whereas the trials are exceedingly in an infant state. The works are located on the summit of the hill, from which they have a commanding view of the rich and beautiful valley of Pequos, with its towns and villages, including Lancaster city, the capital of the county. The neighbourhood appears populous, and rapidly improving. An episcopal church, and a great number of very good substantial dwellings are to be seen in the immediate vicinity, and has quite the appearance of an English settlement.—JOSEPH BUZZO, M.E.: *Midlothian, Rutherford County, Virginia, Jan. 6.*

* With last week's Journal we gave a SUPPLEMENTAL SHEET, which contains—The Southern Gold Fields of New South Wales; Photographs from Manufacturing Districts; Great Wheal Vor United Mines; Midland and Eastern Counties Railway Company; Rosedale Abbey Ironstone; Memo. of Mines and Miners; English Coal, and Human Power; White Brass; Alloy for Medals; Iron Metallurgy; Popular Geology; Manchester Geological Society; Derbyshire Coal-fields; Vulcanising India-Rubber, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, February 19, 1858.

COPPER.	S. s. d.	BRASS.	Per lb.
Copper wire.....	p. lb. 8 1 4½ - 5	Sheets.....	13d. - 13½d.
ditto tubes.....	" 0 1 3 - 4	Wire.....	12½d. - 13d.
Sheathing and bolts..	" 0 1 2 -	Tubes.....	14½d.
Bottoms.....	" 0 1 2½ - 1 3		
Old (Exchange).....	" 0 1 0 ½ -		
Best selected, p. ton	120 0 -		
Tough cake.....	120 0 -		
File.....	120 0 -		
South American.....	118 0 - 120 0 -		
		QUICKSILVER.....	p. lb. 0 2 -
IRON.	per Ton.	SPELTER.	per Ton.
Bars, Welsh, in London.....	7 10 0 - 8 0 0	Foreign.....	27 10 0 - 28 0 0
Ditto, to arrive.....	7 5 0 -	To arrive.....	27 15 0 -
Nail rods.....	8 0 0 -		
Stafford, in London.....	8 10 0 - 9 0 0		
Bars.....	8 15 0 - 10 0 0		
ditto.....	9 15 0 - 10 0 0		
Hoops.....	9 15 0 - 10 0 0		
Sheets, single.....	10 0 - 10 0 0		
Pig, in Wales.....	3 15 0 - 4 5 0		
Ditto, in Tyne and Tees.....	2 15 0 - 3 0 0		
Ditto, forge.....	4 10 0 - 5 5 0		
Staffordshire Forge Pig.....	4 10 0 - 5 5 0		
Welsh Forge Pig.....	3 0 0 - 3 5 0		
LEAD.			
English Pig.....	22 10 0 -		
Ditto sheet.....	22 15 0 -		
Ditto rod.....	24 10 0 - 25 0 0		
Ditto white.....	27 0 0 - 30 0 0		
Ditto patent shot.....	25 10 0 - 27 0 0		
Spanish, in bond.....	23 0 0 -		
		Indian Charcoal Pigs.....	in London.....
			- 7 18 0
		At the works, 1s. to 1s. 6d. per box less.	

REMARKS.—There has been less activity displayed in our market this week, although several large transactions are reported for home consumption, which will naturally tend to maintain firmness in prices, the demand being of that character deemed the most satisfactory; metals taken off the market for immediate use must necessarily infuse healthier tone in the market. The speculations of late may probably lead to slight fluctuations in prices, but we do not think they will prove material, the facilities for holding afforded to speculators at the present time being both easy and extensive.

COPPER.—Orders for shipment have been limited, especially for sheet and sheathing; our market consequently has assumed a quiet appearance. Holders of foreign have been more disposed to realize, and Burra Burra has been offered at 124d., and Lake Superior at 125d.; nevertheless, although the market seems to be slightly depressed at the present time, in consequence of few parcels being rather pressed upon buyers, it is likely to prove but temporary, as smelters have a considerable quantity of work yet to execute for home supplies; in one contract during the week it is reported the Government contracted for 200 tons cake.

IRON.—Previous quotations continue to be upheld; orders, however, have not been numerous, but the Welsh ironmasters generally have sufficient orders on their books for rails to keep them employed some little time longer, and are, therefore, under no necessity to make any immediate alteration in prices. English merchant bars are in diminished demand; Staffordshire descriptions are also in less request, and the production is now chiefly for home requirements. The lull that exists seems to have led some of the makers to make heavy consignments to India, but, judging from the number of orders that have been sent over here, the market out there are scarcely prepared just yet for any large quantity. Scotch pigs have somewhat improved, the price has gradually stiffened, and mixed numbers are now quoted 57s. 6d. to 57s. 9d., cash, g.m.b. f.o.b. in Glasgow.

LEAD.—This metal is still in moderate request, and sellers are looking for higher rates. In the North some transactions have recently taken place, which has given a slight impetus to this market.

SPELTER.—There has been a reaction in prices, and sellers would now accept 27d. 10s. for delivery on the spot; 28d. for small lots.

TIN.—English is yet very scarce, and only comes forward in dribs and drabs, a few second-hand parcels, however, are on the market, which might be obtained at a reduction in fixed rates. The advice from Holland at the commencement of the week showed a downward tendency in the quotation for Banca, business having been effected at 72 fms., since which a few holders here became alarmed, and would readily accept 70 fms., but today's accounts are a little better, sellers quoting 71 fms. to 72 fms., and about 124d. to 125d. in warehouse in London. Considering the vast amount of speculation in this metal, it is not at all surprising that weak should be exhibited in some quarters, but the market, we think, will quickly recover from any tendency of that kind, and place itself beyond the current rates of the day. Straits has been but partly affected; quotations nominally, 122d. to 123d.

TIN-PLATES.—A fair enquiry at ruling rates.

STEEL.—Some faggots are now in the market for sale.

QUICKSILVER.—The demand extremely quiet; probably a large parcel might be secured under 2s. per lb.

GLASGOW, FEB. 18.—We have to report an increased activity in our market. A large business has been done at prices ranging from 55s. 6d. to 57s. 9d., cash; 57s. to 59s., three months open. The open buying was mostly for English speculations. The close to-day was rather flatter, sellers at 57s. 6d., cash; or 58s. 6d., three months open. No. 1 Gartsherrie, 61s. 6d.; No. 1, g.m.b., 57s. 3d.

LIVERPOOL, FEB. 18.—There is but little alteration in the tone of our metal market since the date of our last report. The demand for Welsh iron continues to be fair, whilst for Staffordshire qualities the orders are decidedly more plentiful, more especially for nail rods and sheets; for bars the enquiry is not so good. The accounts from the United States are improving, the orders arriving by each steamer being gradually on the increase. Generally speaking, the makers are not actually wanting orders, and the prospects of the trade are satisfactory and encouraging. There has been a large business transacted in Scotch pig-iron during the week, resulting in an advance in prices. A considerable portion of the transactions have been on open time—the present cheapness of money and the comparatively low prices ruling inducing speculation for a rise. The shipments are 7382 tons, against 10,163 tons for the corresponding week of last year. The demand for English tin continues to be extremely limited, and a reduction in price is not improbable, seeing that foreign is lower. For tin-plates orders are not numerous, but still prices are steady. Copper is quiet—a moderate business is reported. The following are the quotations:—Iron: Merchant bar, 7d. to 7½d. per ton. Tin: Common block, 128d. per ton; common bar, 129d.; refined block, 131d. Tin-plates: Charcoal, 1d. 33s. 6d. to 34s. per box; coke, 1d. 28s. 6d. to 29s.—Lead: English sheet, 24d. per ton; English pig, 23d.—Copper: Cake and tile, 126d. per ton; best selected, 129d. per ton; sheathing and bolt, 1s. 2d. per lb.—Yellow metal sheathing, 1s. per lb.—Steel: Blistered, 30d. to 40d. per ton; spring, 18d. to

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NOTICES TO CORRESPONDENTS.

** Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

SAFETY CAUSE.—In your last Journal you refer to a new cage invented by Mr. Owen, of Manchester, and seem to entertain a favourable opinion as to its efficiency. Now, in the first place, I cannot discover any remarkable novelty, except that the pointed lever is placed too low to be as efficient as it might be. The whole working of the machine depends upon the action of a simple spring,—one of the most dangerous articles to depend upon. The invention of Mr. Owen appears to be a bad imitation of an old patent. In the old invention the action of the clip was caused by the fall of the cage itself, the weight of the cage being thrown on the outer ends of the levers; surely this was a more practical contrivance.—J. H.

CAGE DRESSING.—I see in the *Mining Journal* of last week a very elaborate report of a discussion at the Institution of Civil Engineers, on tin dressing in Cornwall. Therein Mr. Oxland's process is mentioned. I do not wish in any way to detract from that gentleman's merits, but if any one will take the trouble to refer to Aikin's *Chemistry*, published in the latter part of the foregoing century, he will find a process described nearly identical to that of Mr. Oxland. Iron coated with zinc was known in 1754, in France. There are now, Sir, a great many inventors who are in the position of *Fug* in Sheridan's farce of the "Critic." That gentleman makes one of his characters say, "Perdition catch my soul, but I do love thee," whereupon *Dangle* replies, "I believe I have seen that line before somewhere in Shakespeare;" to which *Fug* rejoins, "Very likely. Shakespeare and I both hit upon the same idea; the only difference was that he happened to live some 200 years before." The conclusion I have arrived at, and which I dare Mr. Campion or any other patent agent to deny, is that half these new inventions are nothing but plagiarism.—NOREAS.

TICKETING DINNERS, AND SAMPLERS' FEES.—The publication of my letter in the Journal has made no small commotion amongst the mining community, and has been the subject of much comment in certain quarters, where "miners most do congregate," as well as in general society. I can assure you it has met a hearty approval from all parties, save the recipients of the spoil. The general opinion seems to be that gratuity to samplers should be discontinued, and the refreshment department placed on a less expensive and more simple scale. At our ticketing on Thursday week, I noticed seven samplers and four assayers dining, at about 1s. per head expense to the miner, at the same time they pocketed in cash the usual fees in lieu of dinners. Now, Sir, by keeping facts like these before the mining public, I think, with you, they will awake to these weekly monstrosities, and by unity of opinion shun them, and prepare the way for greater triumphs; but to effect our work properly, we must be content with instalments. I will endeavour to keep you well and exactly informed on the subject, as I am deeply interested in the matter, not only for the sake of my own mines, which can but ill bear needless extravagance, but for mining generally. Perhaps those gentry who fleece us so severely may moderate their expensive banquets, when they are at it.

"A chisel's amanuense taken notes,

And faith be'll print 'em."

I shall not relax my endeavours one little till all be accomplished, if you will lend me your assistance, being quite conscious I am exerting myself in a good cause, and am supported by all right thinking men, as well as by judicious and careful miners.—AN ADVENTURER.

THE CHANCELLORVILLE BUREAU.—One of the victims in this wonderful scheme has very fittingly perished in your valuable Journal, last week, the doings, or rather misdoings, of the managers, directors, or other great functionaries of this company, along with the notification that its goods and chattels have been taken possession of by the Sheriff of Cheshire. Can it be possible that any set of persons, either with or without character, can with impunity start a company, obtain 50,000*s*. on that number of shares, purchase estates, erect machinery, put the shares up to several pounds premium, publish extravagant reports—and that, too, in the face of the openly expressed opinions of Mr. Evans Hopkins—allow the property to be taken by the sheriff, and the shares reduced to a shilling value at a period when Mr. Harris asserts that Welsh ore can be crushed, tested by his actual experience, producing an ounce of gold to the ton, at the moderate cost of 2*s*.—and without proper meetings ever being called, or the shareholders officially apprised of what has been done with their money? What is the secretary and other officials paid their salaries for? Are they made for the company, or the company for them? In all undertakings of this kind meetings of the shareholders are required to be called, accounts kept, and other safeguards provided for the protection of the shareholders and their property. If these requirements can be disregarded, it will be a death-blow to all public associations. The shareholders should meet: they certainly have a remedy through the Board of Trade to have these accounts investigated, and if necessary to take proceedings to recover back any money if misappropriated by these officials, if they are worth powder and shot, and if not of ability to pay to punish them in some other way. It is only necessary for some respectable shareholders to take the lead, in order to carry out this process. I have yet to learn that the laws of this country will allow a dozen officials to take and spend the whole capital, without condescending to give to the shareholders any account of its application. The trial of the British Bank people will no doubt elucidate the law on this point, and show its applicability to the highly puffed off Chancellorsville Gold Mining Company.—ANOTHER VICTIM.

EATING OF MINES.—Mr. Kendall is about to bring his bill before Parliament. I trust I shall not be considered discourteous if I venture to ask what the Miners' Committee are about to do? I do not ask them to render any account of the funds that were subscribed, I would merely put this question, are they going to act or resign? If they adopt the latter course, we shall know what to do. An answer to this plain question is all that is required.—C.

GREAT WHEAL BUSY.—I have been repeatedly asked, and especially of late, my opinion of this mine as a speculation. My answer is, I have not seen it; but judging from its situation, and the quantity of ore taken from it by the former and also by the present company, and likewise taking into consideration that it is still what may be called a shallow mine, I can come to no other conclusion than that it will do to speculate in. Then they enquire if there are not heavy liabilities in arrear? This, of course, I cannot say, yet it is generally thought such is the case. Therefore, I think it would be wise on the part of the committee if they were to come forward and openly offer to pay all liabilities, except what has been incurred during the last two months. If they were to do this parties about to speculate would have confidence in the mine, and share advance in price.—N. ERNST.

CASE-STEEL SHIPS.—Much has been said about homogeneous metal and Mr. Clay's patent, which is very similar to the old one of Schafnau. Can any of these homogeneous gentlemen secure uniformity? How is it in Sweden so many bars that have been subjected to the process of cestination are rejected, and a careful selection always required? If any one can secure uniformity in a bar of iron, and show the same texture and fracture all through a charge, I shall believe it; but until that period arrives I must still continue to call myself—RUSSELL.

"B.D." (Mold).—The letter has been forwarded.

CAST-STEEL SHIPS.—Much has been said about homogeneous metal and Mr. Clay's patent, which is very similar to the old one of Schafnau. Can any of these homogeneous gentlemen secure uniformity? How is it in Sweden so many bars that have been subjected to the process of cestination are rejected, and a careful selection always required? If any one can secure uniformity in a bar of iron, and show the same texture and fracture all through a charge, I shall believe it; but until that period arrives I must still continue to call myself—RUSSELL.

"B.D." (Mold).—The letter has been forwarded.

THE PICK AND GAD.—We are sorry to announce the discontinuance of this mining "monthly," a serial which, during its brief existence, filled a hiatus that was acknowledged to exist in scientific literature. It was conducted with skill, and the articles on mining, particularly on the machinery connected therewith, were elaborately written; but, like many, indeed most, scientific publications, its issue was attended by a ruinous loss. The public mind appears not yet sufficiently advanced for such efforts to be duly appreciated; and we fear it will be long ere sterling information will be sought after and preferred to worthless sentimental idealities.

GOLD MINES.—Had "P. S." (Bristol) read the Journal, he would have known the fate of the companies referred to.

BLAKEMORE IRON AND COAL COMPANY.—In the letter addressed to the shareholders of this company, in your last Journal, by Mr. J. G. Williams, he states incorrectly that the property was purchased in 1836 for 200,000*s*. for the leasehold and freehold, and 65,000*s*. for the stock and plant, and that in addition to this there was a mortgage of 70,000*s*. charged on the property. The correct statement would have been that the price of the leasehold and freehold was 322,000*s*. and of the stock and plant 65,000*s*.—making 237,000*s*. total purchase money—and the 70,000*s*. mortgage payable by instalments was part of that 237,000*s*. not in addition to it.—THOS. HILL.

ANGELO-CALIFORNIA GOLD MINING COMPANY.—Can any of your correspondents inform me what the liquidators of this unfortunate company are doing. Mr. Cottrell, the Chairman, said at the last meeting, in July, it should be wound up in a month. Here we are, in the spring of the following year, and nothing has been done.

PORT OF TOTNES.—A wrong impression has gone abroad, that ore cannot be shipped easily from this port as others in Devonshire, and in consequence of this erroneous opinion several of the mines in the neighbourhood have suffered. I beg to state this is a most fallacious impression. There are always plenty of vessels here, and many ships bringing coal and culm would have had to return in ballast had it not been for the return freight of copper ore.

MINERS' FRIENDS.—You have been giving some good practical hints on these subjects in your truly useful Journal during some weeks, therefore you will excuse my making the following remarks, as I really think the suggestion may be available and desirable in certain situations. Being in Yorkshire lately, my attention was drawn to a large stone quarry, which was being drained by a powerful windmill, and this most effectively. I have also seen them doing valuable service in the Fens, where they work pump. In Holland, to a large extent, they are applied for the same purpose. At Kit Hill, I understand, some years since, one was used for this purpose, and answered well. In situations where water-power cannot be made available, and where coal is expensive, why could not wind be made subservient to man's use, if not as a whole, why not as an auxiliary? The cost of its adoption is very little; and during many weeks or months of each year much power might be applied at a nominal cost. I do not propose such means for the great and deep mines, but I am persuaded many young and shallow ones might adopt this power, if not for pumping, for some other purpose. If it answer in the case before mentioned, I can see no reason why it should not on some of the bleak commons and barren hills of Devon, Cornwall, and Cardigan, where some power of less cost than steam and less expensive machinery than the motive agent requires, would be deemed a valuable acquisition. I hope some day to see it in action, when I doubt not it will be admitted to be really one of the "Miners' Friends."—ENRACUM.

GOVERNMENT SCHOOL OF MINES.—The lectures are not published in a separate form; and we do not believe that it is contemplated to do so.

WHEAL LUNCOTT.—As a distant shareholder, I have again to complain of the time the meeting is called,—giving those residing out of the neighbourhood no chance of attending without being brought on their road home. Why not hold the meeting on the mine, at an early hour, instead of at the purser's offices, at four o'clock?

The adventurers would then have an opportunity of making enquiries, and eliciting information.—LEONATE.

WHEAL SAMSON.—I perfectly coincide with the remarks of your correspondent, "Inquirer." We were led to expect, from Mr. Godfrey's researches, great results. I do not know whether there has been a split between him and the directors, as reported, but I certainly think he ought to have had a fair trial, in order to ascertain whether he could carry out what he promised. As a holder of shares, I should be pleased had he only realised one-half of that which he stated.

DOLCOATH, AND ITS MANAGEMENT.—In your Journal of last week the paragraph headed "Dolcoath" appears to convey an intimation that the shareholders in that mine entertain some unpleasant feelings towards the manager, Capt. Chas. Thomas. As far as the shareholders generally, I know such an opinion to be utterly without foundation; they have not only perfect confidence in his ability and judgment as a thorough miner, but are free from all suspicion of his having ever attempted to deceive or mislead them by misrepresentation. The only foundation for such a report I believe to be, that one of the shareholders, at the last meeting, fancied he detected a discrepancy between the estimated amount of tin reported at the preceding meeting to be reserved in stock, and what he could then see on the mine; and so boldly preferred a charge of intentional deception against the manager. The shareholders, however, now see very clearly that by the transaction complained of the mine has been benefited to the amount of some hundreds of pounds. I have no connection with Capt. Chas. Thomas, but as a shareholder in Dolcoath; but in that relation I have had ample opportunity of testing his worth both as a miner and a man, and, in both respects, I believe him deserving of the high reputation he has acquired.—A CONSTANT READER: *Cornishman*, Feb. 16.

ROSDALE IRONSTONE, YORKSHIRE.—I observe a note in the Journal of last week, as to the Rosdale ironstone in Yorkshire. Previously to seeing it, on chemical grounds, and from a dyke traversing the country to near Robin Hood's Bay, I anticipated and described it precisely. I found it to be a volcanic throw, resembling the basaltic dykes.

It will most probably have some leader connecting it with the main dyke. The iron ore contiguous to the main dyke will either be magnetic or red oxide, more likely the former.—M.

GEOLGY AND MINING.—The authority referred to under the name of "our greatest national work" is the "Encyclopaedia Britannica" (8th edition, now in course of publication), and the article quoted from it is Prof. James Forbes' dissertation on the "Progress of Mathematical and Physical Science." Few will differ from your correspondent, "Julius," when he questions the utility of the assumption that the earth originally consisted of nebulous matter, &c. Indeed, geologists would go much further than he does, and would hold any one setting up such an opinion (except as mere ingenious speculations) as quite out of the pale of science. This notion was certainly dogmatically asserted by the brilliant author of the "Vestiges of the Natural History of the Creation," but, unfortunately, that able and generally accomplished writer possessed (like many others) only a smattering of knowledge on those deep scientific subjects into which he so impulsively thrust himself. This, like most other of his speculative views, was decisively repudiated by geologists in many of the publications of the time, among the most known of which is the famous article, by one of the veterans of the science, in the "Edinburgh Review" (July, 1845). These being the *facts* of the case, it is rather too bad that such things should be attributed to geologists. *Ad proposito* of this subject, it is curious, and not a little amusing, that while many of your correspondents have been using hard names towards eminent men for an imaginary tendency to theorising, which (absolutely without a shadow of foundation) they love to attribute to them, the author of the "Vestiges" accused them, on the other hand, and with much greater justice, of not theorising enough. "From year to year, and from age to age," he writes with polished satire, "we see them at work, adding, no doubt, much to the known, but, at the same time, doing little for the establishment of comprehensive views of Nature. Experiments in however narrow a walk, facts of whatever minuteness, make reputations in scientific societies; all beyond is regarded with suspicion and distrust."—HEINRICH BERGMANN.

GREAT WHEAL VOY. UNITED MINES.—In last week's Journal, a communication appeared from a local shareholder, which is considered to require some explanation.

In answer, as to the appointment of Capt. Bryant by the committee of investigation, we have received the following:—We beg you, on the part of the committee of management of these mines, that you will give all your time to the joint supervision of the underground and other necessary work with Capt. M. Martyn, until arrangements are made for the future permanent management, and you have hereby authority to demand every facility in the execution of such duty.

You can have the bed-room at the counting-house to sleep in, and the use of the office and sitting-room for your accounts and conveniences. You will be pleased to sign every order required for materials if you approve of them, as recommended by Captain Martyn; and no order to Messrs. Harvey & other merchants will be available unless attested by your joint signatures.—GEO. NOAKES; EDWARD VANSITTANT NEALE.

With regard to the breakage of the machinery, it was an error in stating that it was Capt. Michael Bryant's report, as the following extract will show that it was the report of Capt. Bryant, dated Feb. 1, and sent to the London office.

The shareholders must judge the extent of the injury from the report, as also from the one received this week, and which appears in the usual column:—"Since writing you on Jan. 11, the most important part of the work in these mines—the forking the water to the bottom of the old mine—has been greatly retarded by means of the breaking of the stocking of a plugger-pole at Crease's engine-shaft, also the breaking of a set-off at Trellawny's shaft. Damage done at Crease's by means of the falling away of a kibble, &c. The men that would have been employed in the 173 have been engaged a portion of their time replacing and repairing the above-named damage, besides which, during the time the engines were idle the water got up so as to prevent the men from going on with the necessary work—enlarging and securing Bounder shaft from the 26 to the 248. The engines and machinery are again working well, but I fear there is no change of their going to work to

FEB. 20, 1858.]

amount exported to the several colonies—Victoria took, 6,630,064L; New South Wales, 3,140,149L; South Australia, 912,794L; Tasmania, 509,251L; Western Australia, 66,773L; and New Zealand, 367,155L.

COAL PRODUCTION AND CONSUMPTION IN EUROPE.

The following statistics, relating to the production of Coal in various parts of Europe, will serve to show the relative importance of this branch of mining industry in Great Britain:

Total produce of coal in Great Britain in 1856 . . . Tons	66,645,450
Belgium produced in 1853 . . .	7,171,550
France produced in 1852 . . .	4,903,920
Prussia produced in 1854 . . .	8,062,500
Saxony produced in 1853 . . .	889,180
Austria produced in 1853 . . .	450,000
Other parts of Europe (Hesse Cassel and Hanover) . . .	221,000
Upwards of 2,500,000 tons were sent from Belgium to France in 1854, mostly by canals. In 1852 France imported 3,000,000 tons; of this quantity 2,000,000 tons came from Belgium, 620,000 tons from England, and 380,000 tons from Rhenish Prussia; in 1854 the importation very much exceeded 3,600,000 tons. In 1852 the quantity of coal sent from central France to Switzerland, Sardinia, Algiers, &c., amounted to 4136 tons. In Prussia the production of coal has increased five-fold within 25 years.	

RECENT METALLURGICAL PATENTS.

SIR FRANCIS KNOWLES suggests further improvements in the smelting of iron. These consist, according to his specification (1921), in the use of kaolin or china-clay, together with magnesian limestone, in the raw state, or the burnt stone, as the flux for facilitating the separation of metallic iron from iron ores, or from cinder. Also in the use of kaolin, together with the nitrates of soda, lime, or potash, in puddling iron, and with the object of purifying it. In adopting this latter method, the amounts of silicium, sulphur, and phosphorus in the pig-iron are to be ascertained, and the proportion of nitrate used, regulated accordingly, in such manner as to ensure the oxidation of those substances, and also of part of the carbon in the pig-iron. The quantity of silicon as well as phosphoric acid thus produced being known, the kaolin added must be sufficient to neutralise, by the alumina it contains, the whole of the silica—both that in the kaolin and that originating from the silicium of the pig-iron—as well as the phosphoric acid, so as to form a true glass. The lime and soda of the nitrates also contribute to this effect. It is recommended that the crude metal should be run directly from the blast furnace to the puddling furnace, in order that a saving of fuel and time may be effected; but it is preferred to melt the pig-iron in a cupola, used in such a way as to act the part of a refinery, appropriate dexterous fluxes being added. From this cupola the liquid metal is supplied to the puddling furnace, so that there is no interruption of its working, while the injurious effects due to contraction and expansion of the furnace are reduced.

Messrs. LEWIS and PARRISH (Birmingham) and Mr. ROBERTS (Dolgelly) have obtained a patent (1914) for a method of working copper ores, so as to obtain a larger percentage of metal from the qualities of ore at present employed, and also to render available refuse ores that are now thrown away. For this purpose, the ore is broken into lumps of about 2 or 3 cubic inches, then calcined in a kiln, similar to a drawing out lime-kiln, at a dull red heat, with coal, coke, peat, &c., for from 3 to 24 hours, or even longer, according to the nature of the ore, whether pyritic or oxidised. When the ore is sufficiently roasted it is drawn out of the kiln, and immediately passed, while hot, through two pairs of rollers, so as to be crushed to about the size of coarse gunpowder. The crushed ore is then plunged while hot into a bath containing either sulphuric or muriatic acid, diluted with water, the strength being determined by the kind of ore under treatment, and the amount of copper it contains. The acid liquid is contained in a tank made of lead or slate, and placed within an iron tank containing water, to the bottom of which heat is applied, to keep the water nearly boiling for from 3 to 48 hours or more. During this time the ore is stirred about continually, and if crystallisation takes place water is to be added, as may be requisite. When the whole of the copper has been dissolved out, which may be ascertained by dissolving a portion in nitric acid, and testing the solution, the copper liquid is drawn off into a second tank, containing sufficient iron to precipitate the copper. For this purpose boiler plate is to be used, the plates being fitted into the tank at distances of 3 or 4 in. The precipitating tank is kept warm meanwhile, and when the whole of the copper has been separated, the liquid is drawn off, the precipitate washed with water, dried, and melted. By operating in this way, it is possible to dispense with many of the operations now essential in extracting copper from its ores; the cost of fuel is stated to be less, while time is saved, and the cost of transporting the valueless portions of the ore is avoided.

Mr. GINNS has patented a method of extracting gold and silver from their matrices (1897), which consists in washing sand and gravel containing these metals, so as to concentrate them, then crushing the metalliferous portion in such a way that it is meanwhile brought into repeated contact with mercury, while the muddy part is washed away by water flowing through the crushing machine. Sometimes he proposes to smelt or amalgamate the concentrated material, and he also adds a small proportion of lime, for the purpose of maintaining the mercury in a greater state of liquidity. The separation of the coarser portions is effected by means of a cylinder, covered outside with perforated plates or wire sieves, and turning in a cistern of water, which receives the concentrated portions that pass through the sieve. For the purpose of agitating the materials in the cylinder, wooden shelves are placed parallel to its axis, by which the gravel is lifted up during the rotation of the cylinder, and let fall again into the water. The bearing of the cylinder at the feeding end is placed higher than that at the discharge end, so that the material is carried forward through the cylinder, and at the discharge end a sloping catch-plate is placed above the surface of the water and over the side of the cistern. The degree to which the materials are to be concentrated varies according to circumstances—from one-sixth or one-tenth to one-thirtieth of the whole bulk.

M. PRIMARD (Paris) has also obtained a patent for a method of treating similar ores (1931), which consists first in igniting the quartz, and then quenching it by a stream of water, so as to render it more easily pulverisable. The powder is then submitted to the action of chlorine gas, for the purpose of converting the gold into chloride—a substance soluble in water, which is to be thus washed out, and the metal precipitated in the usual way. The chloride of silver produced at the same time, and which is not soluble in water, is afterwards to be dissolved out by covering the residue with a solution of common salt, and treating it with steam. The liquid that runs off from the residue contains the silver in solution.

Mr. NEWTON has patented a method of obtaining platinum from its ores (1947). It consists in mixing the ore with lime, baryta, strontia, magnesia, or the corresponding carbonates, and roasting this mixture, for the purpose of separating the osmium generally associated with platinum in its ores. The roasted mixture is then melted in vessels lined with lime, magnesia, or similar substances, the fusion being effected by means of gas burner with oxygen, in a furnace similar to a cupellation or reverberatory furnace, and furnished with tuyeres for supplying the gases. It may be mentioned in connection with this method that M. Deville (Paris) has recently ascertained that the characters of platinum that has been melted are, in many respects, very different from those of the metal obtained in the ordinary way of welding the spongy metal; thus, for instance, vessels made by the latter plan are always more or less porous, while those made of melted platinum are not in the least so. M. Deville's experiments were made in lime crucibles also, and he observed that they exercised a considerable purifying influence upon the metal during its fusion in them, and rendered it as soft as the finest copper. It is very probable that this method may be the germ of a new mode of working platinum, and that it may be the means of reducing the cost of vessels made of this expensive but highly useful metal. Another important fact observed by M. Deville was that an alloy of platinum with 30 per cent. of rhodium—metal frequently associated with platinum in its ores—could be easily worked after fusion and refining, and that it was not acted upon by aqua regia, like platinum.

REPORT FROM NORTHUMBERLAND AND DURHAM.

FEB. 18.—The Coal and Iron Trades in these counties continue extremely dull. The hope entertained generally that the change for the better in the money market would cause a corresponding improvement in trade has not yet been realised. Many of the collieries in these countries are only working two or three days per week; distress among the workmen, of course, exists to a considerable extent.

The strike at the Gosforth Colliery still continues, and there is no prospect at present of an adjustment of the differences between the parties. Many of the workmen have already left for other places. They are, however, raising a small quantity of coal by means of a few shift men, &c., who are employed.

A fatal accident occurred in a coal mine at Job's Hill, near Crook, on Jan. 28, by which a boy, named Michael Hall, was killed. He was riding on the first of a set of 10 tubs drawn by a horse; the tub got off the way, and in jumping out, the horse started off suddenly, and he fell on the way and the tub upon him; the horse was stopped, and on the tub being taken off him he was found to be quite dead.

A melancholy accident occurred lately to Mr. Heppell, viewer of the Thornley Colliery, he having been thrown accidentally out of a gig, which caused his death. And, last week, a similar accident occurred to Mr. Heckles, colliery viewer, Shincliff, Durham. He and another having taken a gig to Auckland, on their return the steps of the gig became disarranged, and came in contact with the spokes of the wheel, and the noise so frightened the animal they were driving that he ran away. The gentlemen kept their seats a certain distance, but the reins having broken they attempted to get out, when Mr. Heckles fell heavily on his head, which caused his death in a few hours. So true it is, that "in the midst of life we are in death;" and although the miners' employment is so dangerous, yet here we have two highly-respected mine agents cut off in situations that appear comparatively safe.

The Elswick Coal Company have at length, we understand, succeeded in draining the mine of water. This is an old and well-known colliery, situated about two miles west of Newcastle Bridge, and on the north side of the Tyne. It was abandoned a few years ago, when the coal trade was bad, and became filled with water. The present spirited company erected a powerful pumping-engine, and have worked it vigorously a considerable time. They have pumped a very large quantity of water, and it is gratifying that there is now a prospect of their reaping some reward, as there is no doubt that a considerable quantity of coal remains in this as well as other collieries abandoned on the banks of the Tyne.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

FEB. 18.—We have little alteration to notice this week in the position of the Coal and Metal Trades generally, although individual spots a greater amount of activity has been experienced. We have received favourable reports as to the prospects of mining enterprise in North Wales, but the new speculations in Monmouthshire and some parts of Glamorganshire are scarcely so favourable. Most of these schemes, however, are yet in their infancy, and the preliminary expenses are consequently felt rather heavily. We entertain no doubt of the ultimate success of those which are based on practical knowledge and sound judgment.

We are happy to announce that the vexatious disputes between the Taff Vale Company and the freighters have at length been brought to a conclusion. This hindrance to the trade of the port of Cardiff is now removed, not however before serious losses have been occasioned. It was agreed after several consultations to refer the points on which the difference was raised to the arbitration of Mr. Hawkshaw, the engineer. He has now made his award, according to which the railway charges will for the future be 1*sd.* per ton—*jd.* per ton on the sidings at the collieries, and at Cardiff terminus. The company will be also entitled to receive an allowance when they construct additional sidings for the accommodation of fresh collieries. It is understood that as soon as the terms were agreed to 14,000*t.* was handed over by the freighters to the company as arrears. A much larger quantity of steam and other coals, as well as iron, has been shipped since then, for many weeks past. Freights to various parts range from 12*s.* and 12*s. 6d.* to 4*ls.*, at which latter price a vessel has been chartered to Panama.

The new dock just completed at Newport is about seven acres in extent, and will accommodate 100 vessels of the ordinary burthen. Improvements in the mode of construction over the old dock have been made, and it will afford much greater facilities for shippers than they have hitherto enjoyed. A powerful hydraulic apparatus has been erected at the east side, for the purpose of opening the lock gates, and working five coal shipping machines, and ballast cranes. At the north end a slope has been built for unloading timber. The depth of the dock is about 36 ft.; it will be opened on Tuesday, March 2.

The inquest on the body of the man killed by the falling of the Caerhewell Suspension Bridge, of which an account has appeared in this Journal, was resumed last week at Garthmill. Only one witness was examined, but an interesting report was read from Mr. Evans Hopkins, engineer of the Newtown and Llanidloes Railway. It stated that on examining the broken rods, and the quality of the iron, he was surprised that the bridge had stood so long, as "the weight of the roadway must have been excessive, and totally out of proportion to the slight structure of the suspension rods above." The roadway was constructed of numerous very heavy double-flanged cast-iron cross girders, placed 8 ft. apart, and these supported double diagonal planking, covered over with a thick layer of ballast. The sides of the bridge were also formed of wide wrought-iron plates and iron railing—the whole only sustained by a comparatively few rods of $\frac{1}{2}$ in. diameter, placed diagonally." The report further stated that several of the rods had been in a defective state for some time past. The bridge was on the "Dredge's" principle, and was constructed in a very imperfect manner. "In conclusion," says Mr. Hopkins, "I have no hesitation in stating that this bridge, as it was constructed, was unfit and dangerous to be used for traffic, and that the defect in the construction, and the heavy weight of the roadway, suspended by rods of inferior iron (which have been allowed to get broken, and the distribution of the weight left unadjusted), have been the cause of the accident." The inquest was again adjourned, for the purpose of procuring the evidence of Mr. Dredge, the contractor, who it was stated had guaranteed the safety of the bridge for seven years.

A fall of coal took place this week in one of the levels belonging to the Ebbw Vale Company, at Abersychan. One man was so seriously injured by the accident that he died soon afterwards, and another is not expected to recover.

A casualty of a similar character occurred at Pontypool last week. The deceased was a boy, aged 15, and he worked with his father in the Glyn Pond Pits. At about six o'clock in the morning a fall took place in the pits, by which he was badly injured, and he died the same evening. It was shown at the inquest that the sides of the level were securely walled up, and the top properly timbered, and the catastrophe was, therefore, not the result of negligence.

The Government Inspector of Mines for Glamorganshire instituted proceedings on Saturday last, before the magistrates at Bridgend, against the agent of the Llynnau Vale Iron Company, Mr. Williams Davies; in the first place, for not supplying copies of rules to the colliers employed in the pits; in the second, for not ventilating a mine known as the "Gin Pit"; and, lastly, for not supplying a sufficient number of overseers, pairers, deputies, &c., as required by the first special rule made in pursuance of the statute. It was stated that Mr. Evans (the Inspector) had brought the summonses in consequence of an accident which occurred at the Llynnau Colliery a few weeks ago, by which a man lost his life. The son of the deceased was one of the parties who had not been supplied with rules, but it was contended on behalf of the company that he was not engaged by the company at all, but merely worked under his father. The magistrates concurred with this view of the case, but urged upon all colliery proprietors the importance of providing their servants with the rules required by Act of Parliament. The second charge, for imperfect ventilation, was then proceeded with. Mr. James Evans said, that when he visited the "Gin Pit" there was a very little air in the workings. He detected accumulations of gas and fire-damp in places where the men were at work, and instead of there being 10,000 or 11,000 feet of air in the colliery there were only 4000 feet. The agent, he added, evinced a want of care by not bratticing up the headings properly. Some witnesses were called to prove that the pit was in good working order, and the magistrates said that as the case did not seem to be one of very great neglect, they would merely inflict a nominal fine of 1*s.* and costs. The last charge

was that of not employing a proper fireman to examine the workings previous to the men going into them every morning. Mr. Evans proved that this precaution was necessary, because the roof was dangerous, and choke-damp might collect. A fine of 40s and costs was inflicted, and the Bench expressed a hope that for the future the requirements of the Act would be in every respect complied with.

Mr. H. W. Wood, Briton Ferry, has patented an important invention for manufacturing preserved coal, and works have been erected at Blackweir, near Cardiff, to carry out the operations consequent upon the patent. These works cover a space of 5 acres, with a frontage of 1000 ft. towards the Glamorganshire Canal on one side, and the Taff Vale Railway on the other; and thus a communication with the Butet Docks and other shipping places at Cardiff is effected, whilst all the celebrated Welsh steam collieries are also within easy reach. A variety of curious information is before me as to the advantages of the preserved coal. By the process of manufacture which is adopted anthracite, steam, or bituminous coal, is worked up into blocks, and thus space is economised. A ton of South Wales steam-coal requires on ship board 41 cubic feet; a ton of Newcastle coal, 41 cubic feet; whilst the preserved blocks require only 26 ft.; thus in every 100 tons 1500 cubic feet of space is spared. It is calculated that by the transit from Cardiff to the Mediterranean ports, there is a saving of 217 lbs. in every 100 tons of preserved coal, as compared with steam-coal in the ordinary form, because, being in blocks, the waste and loss of evaporating power is avoided; and if the voyage is to China, India, or Australia, then the saving upon 100 tons is put down at 62%. An important matter as affecting the safety of life to passengers, &c., is also pointed out, in the fact that self-ignition is effectively prevented, as every block is hermetically sealed; and a further advantage is that great cleanliness is preserved, as the blocks, when whole, are free from dust, and when broken for use, the fragments are angular, sonorous, and clean. I understand the company has been very successfully formed.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE. [FROM OUR CORRESPONDENT IN CHESTERFIELD.]

FEB. 18.—The Iron Trade continues to manifest but slow indications of improvement, notwithstanding the cheapness of money. Trade in the manufacturing districts continues to improve, and it seems probable that a renewed activity will be experienced before long. The enquiry for manufactured iron has improved, and the demand for home consumption has increased, but for export there is little doing. The strikes at the iron works are at an end, and altogether there are reasons for hope and encouragement.

The prospects of the Mill Town Mine, at Ashover, have very much increased, which has caused a rapid advance in the price of shares. Last Thursday the company sold 167 loads of ore, besides which a large quantity was left over undressed.

The Mill Dam Mining Company have some good prospects of an excellent mine. The opening of the level is proceeding satisfactorily, and will soon be cleared out, should the present dry weather continue. A vein of ore has been discovered at the bottom of the shaft upwards of 18 in. thick, and according to the agent's report the mine is likely to be very rich. The Eyan Mine is improving.

At the West Riding Geological and Polytechnic Society annual meeting, an interesting essay, contributed by Dr. Stephenon M'Adam, on "The Romans of an Ancient Bloomery at Looe Hillhead, Argyllshire," was read by the secretary, Mr. S. Ward. By this paper, which was an account of some discoveries made at Looe Hillhead very recently, it was established that the birth of our iron manufacture may be dated from about the time of the Romans. The soil about this locality was crowded with scoria and the fuel used had evidently been charcoal. The iron that produced would not be very good, but it would be very serviceable for the ordinary requirements of the Romans. In the discussion which followed it was argued that most of these bloomeries were generally established on or near the tops of the hills, in order to have the great advantage of the wind constantly sweeping over them; and that they were generally worked by itinerants who set up a bloomery for a few weeks in a place, and then removed to another part of the country. Mr. H. Briggs (Outwood-hall), said there was a deep valley running east and west in the neighbourhood of Overton, near Flockton, and there he found a great quantity of slag. He thought the Romans must have used hammers to bring the blast to a focus.

THE IRON AND METAL TRADE OF SOUTH STAFFORDSHIRE. [FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

FEB. 18.—The Iron Trade continues greatly depressed, but a shade of improvement in the home demand is experienced by some manufacturers. The last news from America was more cheering, and some remittances were received and a few orders, but there is little disposition either on the part of the merchants there to order to any extent, or on the part of manufacturers here to execute any but small orders until the present amount of indebtedness is further reduced.

The miners west of Dudley have generally refused to accept the reduction in their wages of 1s. per day, but some have gone in, and it is not probable that the strike will be prolonged. A reduction of 1s. per ton has been made in coal east of Dudley, which will probably lead to a reduction in colliers' wages, in that locality.

The general hardware trade of the district are very flat, but a slight improvement is experienced in the home demand, and that news from the East Indies is rather more assuring. From the United States and South America, however, scarcely any orders are received.

Messrs. Sandford and Owen, of the Phoenix Works, Rotherham, who have engagements with parties in this district, have been compelled to call their creditors together for the purpose of submitting a statement of their affairs, and asking for indulgence. They state that the accounts which they will submit will show their perfect solvency, the necessity for this step arising from circumstances of a merely temporary character. The meeting takes place to-morrow, at Leeds. The firm makes wheels and axles to a large extent. It is not probable that their debts to ironmasters in this part of the country are heavy.

In the Birmingham Share Market but little has been doing during the week, but prices have been rising. Midland stock has been done at 100; Birmingham Canal closed yesterday at 90 to 92 per cent., whilst in railways prices were higher.

The proprietors of coal mines in the Oldbury district have taken a step which, if it be faithfully carried out, will prove of considerable advantage. Hitherto the practice has been to keep a running account for the quarter—the purchaser giving a bill at three months, one month after the quarter is expired. Under this system an average credit of 5½ months is given, and whether the purchaser be an ironmaster or a dealer in coal for domestic purposes, he is able to convert the coal into cash at a much earlier period, so that this was one of the many means for creating fictitious capitals by the creation of two or more bills, representing at the same time a single value. The coalmasters have met and decided to establish monthly settlements, and to accept at the close of the month no bill exceeding three months, allowing 2½ per cent. for cash. This step is important in itself, but it is still more important as a suggestion to the men by which only the mercantile world can be purged from the fraud and insolvency which now so extensively pervades it.

Whatever alterations may be made in the law, however, the proceedings of bankrupt and insolvent debtors may be improved, fraudulent debtors will still be left off, and practices permitting persons to trade without capital will still continue, so long as honest traders contend against the evil individually. It is not worth one man's while to go to the expense and trouble of opposing an insolvent or a bankrupt, and of exposing his past transactions. He is naturally inclined to get what he can, and put up with losses. But a union of the members of similar trades, admitting only respectable men to join them, could by united action lay down general rules as to credits, and could take united action to expose, if they could not punish, those whose dishonesty threatens to convert trade into a lottery, the prizes in which will be reserved for the most consummate scoundrels. It is not only in large operations that the system of incurring debts without a reasonable prospect of payment obtains. The Insolvency Act is now extensively taken advantage of by all classes of persons, even by many in the receipt of weekly wages; whilst the number of shopkeepers, barbers, bakers, pawnbrokers, &c., who have either paid small compositions or "taken the benefit of the Act," is almost incalculable. To wait for Acts of Parliament to cure the evil is a delusion. The remedy lies in united action amongst honest men, to separate them manifestly from mere adventurers, and to protect their property from the machinations of fraudulent traders. For the last half century English society has been freeing itself from the trammels of old institutions, including guilds, &c., which had become unsuited to the altered state of business transactions; but the necessity for other and more effective associations is becoming more and more manifest, if mutual confidence, which is the essence of commercial success, is not to be entirely broken down.

NATIONAL BANK.

A special general meeting of proprietors was held at the Bank House, Old Broad-street, yesterday, Mr. F. NEWSAM in the chair.

The CHAIRMAN remarked that those who were present at the ordinary general meeting in May last would recollect that many shareholders considered it was very inconvenient that the meeting should be held on the Derby day, and that if it were fixed for the day following they would get a much larger attendance, and the directors had, in accordance with the wish thus expressed, convened a special general meeting, so as to alter the day to the fourth Thursday in May. Before calling on the secretary to read the notice from the *Gazette*, he would remind them that that was the only business which they could deal with.

Mr. H. B. Hynes (the secretary) then read the advertisement in the *London and Dublin Gazette* convening the meeting, as also that to be held on Friday next to confirm the business done at the present meeting.

Mr. WAXMAN spoke to the advisability of having two meetings in each year, and argued that as they had not only nothing to conceal, but had every desire for publicity, he saw no reason why they should not imitate some of their neighbours in London by holding half yearly meetings. He was aware that it was usual for Irish banks to hold their meetings only once a year; but as they were now the National Bank he did not see why they should continue in their old system with regard to the frequency of their meetings.

The CHAIRMAN said they could not make such an alteration as Mr. Wheeler spoke of without having their deed of settlement changed, which he considered almost unnecessary, as any shareholder could always obtain all the information he asked for at the offices.

The resolution for altering the day for holding the annual meeting to the fourth Tuesday in May, a shareholder having suggested that Tuesday would be more convenient than Thursday, was then passed. A vote of thanks to the Chairman and directors, which was appropriately acknowledged, terminated the proceedings.

REFUSAL TO WORK MINES.—An important decision was given by Vice-Chancellor Page Wood, on Tuesday and Wednesday last, in the case of Knight v. Schneider—bill filed for a specific performance by defendant—was heard. It appears that ironstone and spathose descriptions have been discovered in Exmoor Forest, Somerset. The defendant alleged the non-existence of the mineral within the area let in sufficient quantities to pay for working. The plaintiff argued want of effort to discover the minerals. Decision for plaintiff, subject only to a question reserved, as to whether the plaintiff is bound to show his title to grants, which depends on the nature of the agreement between the parties.

METALLIC ALLOYS.—Mr. L. A. Bahn, of Greek-street, Soho, proposes the use of a metallic alloy, afterwards galvanized, for sheathing ships, boiler-plates, tubes, and other similar purposes.

COST-BOOK MINES—ACTIONS FOR CALLS.

HYBART v. PARKER.—Court of Common Pleas, Westminster, Feb. 10.

Cos: WILLIAMS, CROWDER, and WILLES, J.J.

For Plaintiff.—Counsel: R. P. Collier, Esq., Q.C., and C. G. PRIDEAUX, Esq. For Defendant.—Counsel: M. Smith, Esq., Q.C., and Thomas Tapping, Esq.—Attorney: Charles Hassell, Esq., of Bristol.—Agent: A. W. Irwin, Esq., Gray's Inn—sq.

The point decided was, that an action for calls does not lie at the suit of the purser of a cost-book mine against an adventurer therein, notwithstanding the rules of such company give the purser an express power to bring such action.

The above important item of cost book law was solemnly decided by the full Court of Common Pleas, at Westminster. The facts of the case were as follows:—The East Birch Tor Tin Mine, constituted on the Cost-book Principle, numbered among its rules the following clauses:—1. An authority to the adventurers present at any general or special general meeting of the adventurers and shareholders of and in the company, held pursuant to its rules, to make any call or calls they might think necessary for working its mines upon the said adventurers and shareholders, in respect of their several shares therein.—2. That all calls should be paid into such bank as the committee for the time being appointed, pursuant to the rules for the management of the company, might direct, within 14 days after such calls should have been made out.—3. That for the better enforcing payment of any call or calls made pursuant to such authority, and found to be in arrear, the same should be considered, and was thereby declared, to be a debt or debt due from the shareholders or respective shareholders so in arrear to the purser of the company, who should have power to recover the same as a simple contract, debt, or debt due to him from such defaulter or respective defaulters by action at law in any or either of Her Majesty's superior or inferior courts, and that upon the hearing or trial of any such action the production of the register of shareholders in the cost-book, with the minute of the resolution making such call or calls so in arrear, should be prima facie evidence of the defendant in any such action being a shareholder, and of the call or calls being due, and that in any such action the defendant should not be at liberty to set up or plead a partnership with the purser as a defence.

The company duly made three several calls, each of which the defendant (Parker) refused to pay, whereupon the purser (Hybart) brought his action against the defendant to recover the amount thereof. The declaration contained a special count, setting out the above rules, and also the common money counts. The defendant pleaded about 14 or 15 pence, the principal of which were the 6th, 12th, and 13th; and also demurred to the declaration, because it did not disclose any cause of action between the plaintiff and the defendant. The defendant demurred to the above-mentioned 6th, 12th, and 13th pence.

The demurrs having been set down for argument, the defendant delivered 10 points upon which he should contend that the declaration was defective, irrespective of the points having relation to the pence.

When the demurrs came on for argument, the defendant's counsel opened the pleadings, and while contending that the objections were numerous and patent, that the company could not sue for calls, and particularly that the purser (Hybart) could not, was stopped by the Court, and the plaintiff's counsel called on to argue in support of his declaration; whereupon they argued that the special nature of the regulations clothed the purser with a perfect right of action.

WILLIS, J.: What purser? Are the calls to be paid to the purser for the time being, or to the purser when the calls were made? COLLETT, Q. C.: The purser for the time being.

WILLIS, J.: Is there any case in which a purser for the time being can sue?

On an answer being given in the negative, the Court gave judgment for the defendant. There was also set down for argument a similar case, of Hybart v. Evans, which by colson was heard first. In that case, also, the Court gave judgment against the purser, and for the defendant.

THE BARSDALE COLLERY EXPLOSION.—The inquest on the sufferers of this explosion terminated on Monday, when a verdict of "Accidental Death" was returned. The deaths now number 52. The principal evidence taken since our last account was that of Wm. Seddon, J. Simpson, and John Rigby. Wm. Seddon had examined the mine and found all the cut-throughs made up with bricks and mortar above, the No. 2 level except the first in that level out of No. 1, that was nearly filled with dirt, and they could not tell whether there had been any bricks or not. He would think that if this cut-through was considered safely stopped no man would have made up with bricks and mortar six cut-throughs above. James Simpson had frequently noticed a large quantity of gas in the pump; the hole was always full of gas when the water was out, and had often fired at his lamp. He had waited a fortnight for bricks; the underlooker had kept putting off, saying that he had ordered them. At two points in the lower mine there is but one door, where there should be two. These points are in the main level, where the air goes. He had had to use his shirt, and so had other men in the openings; they often could not get bricks. The very night the explosion happened he would have taken down bricks, but there were none about. He had known five men play for a fortnight because there was so much gas in their places, owing to there being no bricks to stop the cut-throughs. The coroner cautioned the witness against continuing to work under such circumstances. Mr. Wilde had never had a complaint from a man since he had taken the colliery. The witness had heard that more was being paid for getting, because of the gas, but not more was paid by others in the neighbourhood. He got clear about 21s. a fortnight; he was then getting about 31s. Joseph Dickenson never saw any signs of danger in his level, but had heard the men in the level above (Robinson's, where the shot was said to have been fired) say that when they fired a shot they had seen the gas blaze out and explode a bit. Thos. Taylor (who found Jones' body near the face) noticed that none of the eight cut-throughs in his level had been made up with bricks and mortar; they were dirt stoppings. The air-road was an narrow in many places that he (Taylor) could span across from the dirt to the roof; he had to clear away dirt to squeeze through. John Gartside corroborated Seddon, and the fact of there being only single doors where double ones should have been. John Rigby worked in the lower mine, and up to the time of the shock he had observed nothing wrong; the air was sufficient, and they had the first of it after it came down the shaft. He had no fear, although the place did sometimes give out a great deal of gas. Mr. Dickenson stated that on Sept. 29, 1856, he received information that an explosion was likely; he immediately went to the colliery, and found that in consequence of the quantity of gas the lower workings had been stopped, and he was assured that they should be until the second pit was completed; he did not descend the mine again until after the explosion. He thought some sudden outburst must have taken place, probably where the shot was fired; shot in a dangerous mine like this should not be fired at all. Mr. Wilde said there would never be another ounce of powder fired in the mine, if he knew it or could prevent it. Mr. Dickenson considered that what was wanted is a kind of colliery viewer who combines the practical knowledge of the Hibberts, with scientific training; and one who would have the nerve to tell his masters when there is too much work going on for the quantity of air. In thin mines like this, the strong current of air which must have been passing through the workings, especially on such a cold day as the Tuesday of the explosion, holds out a strong inducement to men in the current to shelter themselves; and the frosty atmosphere would cause the return to show less "cap" in the lamp than usual, when probably the air was nearly at the explosive point. He was satisfied that great improvements had been made in the ventilation, since his inspection of the pit, but he believed the system adopted had broken down in consequence of the smallness of the airways. After a short discussion between Mr. Dickenson and Mr. Livesey, one of the proprietors, it was agreed that, as two or three more of the sufferers were considered likely to expire within a day or two, the inquest should be adjourned until Monday, when the jury returned a verdict that they were unanimously of opinion that the explosion was accidentally caused by blasting in No. 1 level, south of the gin-brow, the two-foot mine, and was then communicated to other parts of the mine. The foreman also read the following recommendations, as agreed to by the jury:—1. Owing to the fiery nature of these collieries, the jury recommend that blasting with gunpowder be entirely discontinued.—2. They consider the ventilation of the more remote workings insufficient, and recommend improved air passages therein, together with such additional alterations as may secure this object.—3. They are of opinion that greatly increased vigilance and care are absolutely necessary in the working of these mines; and in order to secure this object they strongly urge the employment of under-viewers of greater intelligence and scientific attainments. After completing the formal work of signing the inquisitions the jury severally put their names to a subscription list, which was headed by 200l. from the Barisby Company, and 100l. from Mr. John Harrop, proprietor of the colliery.

Death from Fall of Roof.—William Morris, aged 56, was killed at the Dunkirk Coal Company's Dewespin Pit, Dukinfield, by a stone 4 yards long, 3 yards wide, and 2 ft. thick, falling on him. He was robbing back, had drawn two props, and was drawing a third when the accident happened. It was stated in evidence that there was plenty of timber for posts, and that it was entirely at the men's option whether they moved posts or not when they saw danger; as in such cases no fault would be found for leaving the props in the lurch. The coroner considered that ordinary colliers should not be permitted to draw props. A verdict of "Accidental Death" was returned.

Boiling Well.—On Feb. 10 one of the boilers at this mine burst, causing the death of William Glasson (the engineer) and two women, and severely injuring six or seven other persons. Peter Kernick, another of the engineers, is in a dangerous condition, but the others are recovering.

PREVENTION OF DEATHS FROM AFTER-DAMP.—Mr. W. Howard, Great Queen-street, Lincoln's Inn-fields, has just patented an invention, which will be of immense value in mines where explosions from fire-damp are probable. He proposes carrying a series of air-pipes from the surface through the various levels. To these pipes, at convenient distances, he attaches a short length of vulcanised india-rubber tubing, at the end of which is a small chamber, which fits over the mouth and nostrils of the person using it. By an arrangement of simple valves, the pure air can be inflated from the fresh air pipe, and is prevented from returning, whilst the vitiated air is exhaled through an orifice near the mouth-piece, protected by a valve, so that the air in the level cannot reach the lungs of the miner. The invention is applicable to every situation where foul atmosphere exists, and from its extreme simplicity we should think there can be no difficulty in obtaining its speedy adoption.

Safety-Lamps.—Mr. G. Cooper, Stanley-street, Sheffield, has patented an improved safety-lamp, which consists in combining a modification of the Argand burner with the Davy lamp. The base of the lamp contains an oil chamber, surrounded by a conical centric ring and air spaces, communicating with the centre. The air is drawn from within the glass enclosing the lamp, to afford a supply of oxygen to the interior of the flame. The wick can be regulated at pleasure, by turning the body of the lamp. Combustion is promoted by a glass chimney which surrounds the flame, communicating with a gas valve at the top, and this prevents the mixture of the vitiated gas resulting from combustion with the air required for supporting combustion; it also prevents the gases surrounding the light-giving portion of the lamp becoming darkened by smoke or other impurities.

ANTI-FRICTION PISTONS.—Mr. W. Dawes, of Wellington, Salop, proposes to construct the pistons of steam-engines so as to avoid friction on the sides or edges. He bevels the edges of the two outer rings, or covering plates, of the piston, thus allowing the steam to press all round them, and at the edges of the packing rings, which may be of the ordinary description, but between the packing rings is inserted a guiding ring, turned on the outside to fit the bore of the cylinder, and on the inside to fit the shell of the piston.

STEAM ENGINES.—Mr. T. Bowden, of Pendleton, Lancashire, has invented an improved apparatus for discharging water resulting from the condensation of steam. He provides a chamber with three valves, one being for the escape of the water. The two upper valves are connected with the opposite ends of a lever, and a rod connecting the water-escape valve with one of the upper valves; as the water in the chamber rises the valve is opened and the water allowed to escape.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

EXTRACTING METALS FROM THEIR ORES.—We learn that a process for extracting the metals from poor ores is being tested at the Alderley Mine; it is intended to make all the metals contained commercially valuable. For the treatment of copper, lead, and silver the process is said to be most effective; and with regard to cobalt and uranium the necessary practical tests for determining the value have not been completed. We also learn that the said process is found not applicable, in a commercial point of view, to many classes of copper ore. If there is an excess of iron or sulphides of iron it is of no value—an smelting is then cheaper. Thousands of tons of ore and slag not containing more than 2% per cent. (by analysis, not assay) of copper have been smelted without loss.

EAST RUSSELL.—The next sampling will be a good one, and the mine is improving. I am glad to see the company have decided on building the agent's residence on the mine, as his presence will be continually required. Great hope is entertained of this property, taking into account the easy character of the ground, richness of the ore, productiveness of the lode, and the prospect of opening up to many thousands of tons when the 88 fms. under the ore ground; and they expect ore to Homersham's shaft long before the 88 is driven up. No mine has wedged through more opposition and difficulty than Old East Russell, and some credit is due to the late agent, Capt. W. Methersell, who recommended what is now doing some two years since; and had his views been carried out, the mine would now have been paying good dividends. This mine speaks well for the superior judgment of Mr. Joseph Hitchins, and we may hope he will have that support as a mine inspector he so well deserves.—*OBSEVER.*

LADY BURTHA.—It is pleasing to find from the agent's report that the 20 fm. level west has considerably improved. The most important feature is the ore having improved in quality, now worth 10d. per ton, and producing 4 tons per fathom. It is to be feared that the letter of "Looker On," inserted in the Journal of Jan. 16 (which was not borne out by facts), has had a damaging effect on this promising mine. The improved prospects at the different points of operation indicate more prosperous state of things in future.

GREAT HEWAS UNITED MINES.—Great Hewas United Mines will sell 17 tons of black tin this week. The mines are continuing their progressive improvement, with prospects of more than ordinary character for the future.

AT WHEEL CONSTANCE.—The large East Wheal Rose lode has been opened on 18 fm. from the surface for 22 fms., and has been found from 4 to 8 ft. wide. At this shallow level the lode has produced good stones of lead, and has given evidence of being very productive when deeper levels are attained. In driving on this low level five other lodes have been discovered, with which the intersections will make with the large lode, add greatly to the value of the property. There is every prospect of this making a great mine at no distant day.

AT ANGARRACK CONSOLS.—An evan course has been discovered in the shaft, which is of importance, as in the adjoining mines—Alfred Consols and Great Wheal Alfred—the lodes have produced large quantities of copper ore near and in the evan course. Eaton's lode, in the adit level, has a most promising appearance, producing lead and copper ore; and as the

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and discharge their cargoes alongside the pier, free of all charges. The cost of carriage to Keamare is £2 per ton, and the price of coals delivered from Swansea is £6.10s. per ton. I also understand that it is intended to work the gypsum quarry situated on the Shirley property, Lough Tees, county Monaghan, in a very vigorous manner shortly; and the respected agent of the property has entered into correspondence here with a gentleman who seems to possess all the facilities which ever ensure a spirited and profitable working of a quarry.

WEEKLY LIST OF NEW PATENTS.

GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.—J. HASTH, Leeds: Apparatus for preventing the explosion of steam-boilers.—W. C. HOLMES, W. HOLLINSHEAD, Huddersfield: Manufacture of gas, and apparatus employed therein.—A. HOLLIS, S. Lee, Darlington: Construction of chaldron-wagon and other railway wheels.—E. HARLAND, Derby: Break lever guard of railway trucks.—D. WILLIAMS, Tredegar: Construction of ovens or furnaces for the manufacture of coke, and in the means of emptying or discharging the same.—C. KNIGHT, St. John's Wood: Improved railway guide.—J. WELCH, Southall: Railway and other carriage byglasses.

R. W. JOHNSON, W. STABLEFORD, Oldbury: Break levers of railway wagons.—L. BESQUET, C.E., Paris: Machinery or apparatus for breaking stones, minerals, and other analogous substances.—R. ATRous, Edinburgh: Safety cages or apparatus for mines.—J. CHATERTON, Devonshire-street, Islington: Electric telegraph wires, and in insulating telegraphic wires.

SAFETY-VALVES.—The increasing use of high-pressure steam, from its superior economy, has rendered the production of a thoroughly efficient safety-valve more than ever necessary. The "D-disk-discharge Safety-Valve," patented by Mr. Thomas Elliott, Tipping-street, Manchester, is, if we may judge from the readiness with which boiler owners adopt it, really useful, and calculated in a great measure to prevent boiler explosions. The inventor is a locomotive engineer of some experience, and had frequently observed that however strong the escape when the steam was blowing off the boiler, unless a valve was opened the 16th of an inch round the circumference. Concluding that this was insufficient, he has contrived a valve with two circumferences, so that when the valve is elevated there are two separate outlets for the steam instead of one in the area for escape being thus nearly double. The valve is kept down either by dead weight or spring balance, so arranged that they may be locked up to prevent their being tampered with. It has neither spindle nor slide, and is, therefore, not liable to become inoperative from corrosion. Mr. Elliott also provides a float in connection with the valve, so that when the water falls below its proper level the steam is allowed to escape.

GALVANISING METALS.—After the metal to be galvanised has been passed through the ordinary acid bath, and been dried, it is immersed in the ordinary spelter bath, which is kept in a state of gentle agitation by any convenient mechanical arrangement. In place of using sal-ammoniac on the top of the bath, as at present employed in the galvanising process, Mr. L. A. Bahn, Greek-street, Soho, proposes to employ resinous and fatty matter, either combined or separate, to cover the surface of the bath for the purpose of preventing oxidation. By this means he is enabled to prevent the formation of dross or muriate, and ammoniac of zinc, which is generally precipitated to the bottom of the bath in the ordinary modes of conducting the galvanising process. In some cases he proposes to introduce the articles to be galvanised into the spelter bath, from the sides or bottom, in place of immersing them from the surface, whereby he protects the spelter from the action of the bath, the bath being also closed by a lid or cover, which is fitted so as to be perfectly air tight. For the facility of introducing wire or bars of metals into the bath from the sides or bottom, he employs suitable stop cocks fitted with funnel mouths. On opening the cock the bar to be galvanised is pushed through it, and the small quantity of molten metal which escapes from the funnel mouth is partially cooled by the application of a wet rag or sponge, or other cooling agent, to the sides of the funnel mouth, so as to keep the metal in a semi-fluid state, whereby the metal itself forms the barrier against any further escape from the bath.

CASTING METALS.—Mr. W. Barwell, of Birmingham, proposes in the casting of hollow cylinders of copper or brass, such as are used for the manufacture of tubes and printing rollers, to make a mould of a suitable form for casting a cylinder, and support in the axis of the mould a core or cylinder, and between the interior of the said mould and the said core the molten metal is poured in the usual way. He makes the said mould of coarse sand, mixed with horse-hair, or chopped straw or hay, or other suitable matter, and the core of a cylinder of the same materials, in the interior of which he prefers inserting a metallic rod or cylinder, for the purpose of strengthening the same. In order to make the mould and core more porous he pricks small holes therein. When the molten metal is poured into the moulds prepared as described, the air escapes freely through the pores and perforations in the mould and core, and the casting produced is sounder than castings obtained by the ordinary method of casting. The casting is not removed from the mould until it has perfectly cooled.

PATENT CASE—OILING PISTONS.—At the Rochdale County Court, on Thursday, Mr. J. S. Turner Green gave judgment in the case Fielding v. McNaught, in which the plaintiff claimed 50/- damage from the defendant, on the ground of his having infringed the plaintiff's patent for lubricating by oil the pistons of steam-engines. The case was heard three weeks ago, the Judge then taking time to consider his judgment. His Honour said that the great object of Fielding's patent was to make the piston self-supplying with lubricating matter. The ratchet wheel, the motion from the engine, the lever, were not rendered new by combination. In both cases there was what had been called a plunger; but it was a question whether these two implements acted in the same way, and were from the same idea, and were the same invention, for conveying the lubricating matter to the portions requiring it. He was of opinion that they were substantially different. Although each was called a plunger they were different and distinct—different in their mode of operation, and distinct in the idea of each invention; for one acted by outward force, the other took advantage of a law of nature—gravitation. The verdict would, therefore, be for the defendant. The court was crowded.—*Manchester Guardian.*

SULPHUR MUNDIC FOR SALE.—This article will produce 30 per cent. and upwards sulphur, and will be dressed to the wishes of the purchaser; and will be delivered f.o.b. at a wharf in the Truro River. Approved bill will be taken.—For the price and quantity, &c., application to be made to FRANCIS BOTTRALL, Camborne.

WANTED TO RENT, A SMALL SMELTING WORKS.—Applications to be made to "P. X." Mining Journal office, 26, Fleet-street.

OLD RAILS.—WANTED TO BUY, 1000 or 2000 tons of OLD RAILS, free on board at any port in the United Kingdom.—Apply to Messrs. TOWNSEND, Wood, and Co., Swaines.

TO BE SOLD, CHEAP, ONE 36 in. ROTARY ENGINE, with fly-wheel and one boiler (near Plymouth).—For particulars, apply to Mr. H. V. HILLS, 17½, George-street, Plymouth.

TO BE SOLD, TWENTY SHARES in the LINZ COLLIERY COMPANY (LIMITED), situated at Burnupfield, near Gateshead. The proprietors are gentlemen of great influence and wealth, and the coal produced is of the first class for locomotive purposes. The mine is in full working order. The shares £100 each, with £50 paid.—Address, "P. T." Mining Journal office, 26, Fleet-street, London.

WIDNES OIL WORKS AND SOAPERY, RUNCORN GAP, NEAR ST. HELENS AND WARRINGTON, LANCASHIRE. After that part of the Journal in which Mr. WHEATLEY KIRK's advertisement of this sale was printed off, we received the following:

ORDER OF SALE ALTERED.—The sale to commence punctually at 12 o'clock, and the whole, including lands, buildings, plant, utensils, &c., will be offered first in our entire lot, as a working concern; and if no sale is made, then the land, buildings, steam-engine and boilers, without the working plant, utensils, &c., will be offered in our entire lot; and then, if no sale (but not otherwise), the whole of the working plant, utensils, &c., will be proceeded with, and sold by piecemeal, as per catalogue, which, with any other information, may be had at the offices of the Auctioneer, Cross-street Chambers, Cross-street, Manchester; and 4, Kirkgate, Leeds.

TO COLLIERY PROPRIETORS, CAPITALISTS, AND OTHERS.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, THE LEASE of the very valuable beds of HARD AND SOFT COAL, lying underneath about 500 acres of land, at Brinsley, in the parish of Gresley, in the county of Nottingham.

The coal has been well ascertained, and is known to be of a very superior quality; and there are powers in the lease to enable the lessees to get and work the ironstone, which is believed to exist in abundance on the estate.

Two shafts, each 10 ft. diameter, have already been sunk in the deep, to a depth of 10 yards, and are each lined with the best description of iron tubing.

Two other shafts have also been sunk to the upper bed of soft coal, the whole of which is headed out and ready for working.

There is a complete and easy communication by means of a branch railway, recently constructed, connecting the colliery with the Cromford Canal and the Erewash Valley Railway, at Stoneyford; and there are engines and materials on the spot necessary for proceeding with the works forthwith.

The above colliery is exceedingly well situated in the far-famed Valley of the Erewash, in the immediate vicinity of the Codnor Park and other ironworks; and, with every facility and means of transit, is considered to be an opportunity for a safe and highly remunerative investment rarely to be met with.

For particulars, and to treat, application may be made to Mr. SHAW, engineering surveyor, College-place, All Saints', Derby.

AS ENGINEERING.—GAS WORKS ERECTED FOR PRIVATE USE, as well as for VILLAGES, TOWNS, or CITIES, at Home or Abroad. Old Gas Works remodelled and leased. References to fifty Gas Works.

GEORGE BOWER, ST. NEOTS, HUNTS.

PURE AIR BREATHING IN MINES, &c., OR IN ANY IMPURE ATMOSPHERE.—WANTED, A PARTNER, TO WORK A NEW ATENT, by which PURE AIR can be BREATHED in MINES, SHIPS, HOUSES, SHOPS, &c., or in any noxious vapour.—For prospectus, apply, by letter, to Wm. HOWARD, type founder, 72, Great Queen-street, Lincoln's Inn-fields.

IT IS IMPOSSIBLE TO INJURE A BOILER from SHORTNESS OF WATER with one of my PATENT DOUBLE DISCHARGE 4 in. SAFETY ALVES, with FLOAT attached, to open when the water goes down.

T. ELLIOTT, 33, Tipping-street, Ardwick.

DUMPING AND WINDING ENGINES.—FOR SALE, an excellent 50 in. PUMPING ENGINE, 10 ft. stroke, two boilers 10 tons each, perfect condition, nearly new, with fire-proof house. A 24 in. WHIM HORIZONTAL ENGINE, with 10 tons boiler, nearly new, in excellent condition, and sawing machine attached.

As these engines are very superior in make and condition, parties requiring engines will do well to examine them.—Apply to Mr. C. WESCOMBE, 31, Southernhay, Exeter.

OLD MINING COMPANIES.—SHAREHOLDERS in the different CALIFORNIAN and AUSTRALIAN GOLD MINING COMPANIES are requested to CALL ON Mr. F. SQUIRE, 74, King William-street, City, at whom to submit to them a plan by which the shares in such companies, which are now valueless, will be again marketable.—74, King William-street, City, Dec. 24.

MINING ENTERPRISE.—THE ONE-HALF of a valuable TIN MINE, situated in a favourable locality, having every facility for extraction of plant, with water-power, and all other accessories, TO BE DISPOSED OF.—Letters to be addressed to "J. T. C." Mining Journal office, 26, Fleet-street.

The property is already more than paying its cost. The wish of the present proprietors is to obtain further capital, to be employed in developing the mine.

MINING CAPTAIN WANTED IMMEDIATELY, for a MINE in CARDIGANSHIRE. It is absolutely requisite that the applicant should have a thorough practical knowledge of working a lead mine, and dressing the ore. London references will be preferred. The closest investigation will be made into character and ability. Fairly liberal terms will be given.—Apply, stating age, references, salary, and previous situations, to "C. G." Anderson's Hotel, Fleet-street, London, E.C.

TO MINE COMPANIES.—A GENTLEMAN, residing on the Banks of the Tamar, who has had many years' experience in mining matters generally, but especially in the duties of PURSER or SECRETARY, is desirous of ENGAGEMENT in either of those capacities in the Calstock or Callington districts, which his residence commands easily. The most satisfactory references given, and security if required.—Address, "A. H." Post-office, Saltash, Cornwall.

London Reference: Messrs. Bennett and Stark, solicitors, No. 4, Furnival's Inn, Holborn.

PARTNERSHIP.—A GENTLEMAN with a most valuable connection as engineering auctioneer and valuer, also as merchant engineer and machinery agent, for home and exportation, is desirous of MEETING with a PARTNER, a man of influence, intelligent, energetic, and industrious habits, to enable him to extend his sphere of operations, and establish a branch in London.—Apply, "P. S." Mining Journal office, 26, Fleet-street, London.

WANTED, A PARTNER OR TWO in a SMALL STEAM-COAL COLLIERY in WALES, within seven and a half miles of two ports.—For further particulars, apply to "L. J." Post-office, Aberdare.

WANTED, A MANAGING FOREMAN, to TAKE CHARGE, under a resident partner, of large LEAD and SILVER SMELTING and REFINING WORKS. He must be thoroughly conversant with the assaying and smelting of lead and silver ores, as also with Pattinson's Desilvering Process. Exceptional references and security required. None but thoroughly practical men need apply.—Address, "Box 22," Chester.

WANTED, by a YOUNG MAN, a SITUATION as BLAST FURNACE MANAGER; who has been acting in the capacity of under manager for upwards of seven years. Has had great experience in the making of pig-iron in all its various branches, and can well be recommended by his present and late employers.—Apply to HORSE and Son, Gazette's office, Whitby.

MANAGER OF COAL WORKS.—A MAN OF EXPERIENCE is OPEN to an ENGAGEMENT as MANAGER of COAL WORKS. First class testimonials as to character and ability.—Apply to S. STOREY, Rho, near Wrexham.

WANTED, A GOOD SECOND-HAND PUMPING ENGINE 36 to 45 in. cylinder.—Apply to W. H. M. BLEWS, Esq., East Hender Mine, Camborne, Cornwall.

TO CHEMICAL AND METALLURGICAL MANUFACTURERS.—WANTS A SITUATION AS CHEMIST or PRACTICAL SMELTER, or to combine both, a PROFESSIONAL GENTLEMAN, who studied under the late Prof. Johnston, of Durham, and who has acted as chemical superintendent of a copper works in South Wales for the last ten years. The advertiser has a thorough knowledge of copper smelting, practically and chemically; is also a geologist and mineralogist; has had considerable practice in silver assaying; and knows the various processes now in operation for the extraction of gold and silver from ores of copper, &c. He is now open for an engagement at home or abroad, and can produce testimonials of the highest respectability.—Communications addressed "Chemist," Cambrian office, Swansea, will be attended to.

TO IRONMASTERS.—THE ADVERTISER has been MANAGING FORGE and MILLS for the last 20 years, and will shortly be OPEN to a FRESH ENGAGEMENT. Unexceptionable references.—Address, W. B. FOXHILL, chemist, Maesteg, Bridgend, Glamorganshire.

TO PUBLIC COMPANIES, &c.—A PRACTICAL CHEMIST, of considerable experience, is OPEN to an ENGAGEMENT. He is acquainted with the chemistry of agriculture, manures, and colouring matters, and the analysis of ores, &c. No objection to go abroad.—Apply to "S.," care of Mrs. G. Clough, Fallowfield, Manchester.

TO CAPITALISTS.—SILVER AND COPPER MINING IN MEXICO.—A GENTLEMAN, recently returned from a survey of the provinces of Chihuahua, Sonora, and Chihuahua, proposes to FORM A PRIVATE ASSOCIATION, on the principle of limited liability, for the purpose of WORKING certain rich COPPER and SILVER MINES, and of carrying out other profitable commercial operations. Gentlemen who are disposed to enter into a side into such undertakings will be provided with full particulars on application to Mr. CHAS. SEVIN, No. 11, Culver-street, City. Most satisfactory references given and required.

TO IRONMASTERS.—THE ADVERTISER has been MANAGING FORGE and MILLS for the last 20 years, and will shortly be OPEN to a FRESH ENGAGEMENT. Unexceptionable references.—Address, W. B. FOXHILL, chemist, Maesteg, Bridgend, Glamorganshire.

NOTICE.—AN ENGINEER, educated at the Ecole Centrale des Arts et Manufactures à Paris, which is allowed to be one of the first technical institutions in existence, and who, on the completion of his studies, received a diploma of special distinction, and who has since then been employed in a machine manufacturing of the greatest respectability on the Rhine, is desirous of MEETING with an ENGAGEMENT in Germany, Russia, England, or elsewhere. The advertiser is fully conversant with the German, French, and English languages, and possesses the best testimonials as regards his professional acquirements, as well as of his moral principles.—Further particulars may be obtained from Dr. KERNET, Mining and Polytechnical Office, Leipzig, Saxony.

COMMISSION AGENCY.—A PERSON calling on mines and manufactures in the Western Counties of England and Wales would be glad to MEET WITH ONE OR TWO MORE AGENCIES ON COMMISSION. Good references and security, if required.—Address, "P. W." Mining Journal office, 26, Fleet-street.

TO IRONMASTERS.—A GENTLEMAN, practically acquainted with iron mining, and the manufacture of wrought-iron and steel, having had 11 years' experience, and competent to plan and superintend the making and erection of all the necessary machinery and plant of an ironworks, wishes for a SITUATION as GENERAL MANAGER of an IRONWORKS, or any similar occupation abroad.—Address, "Herring," care of Abbott, Barton, and Co., advertisement contractors, 2, Upper Wellington-street, Strand, W.C.

TO THE IRON TRADE.—WANTED, at a MODERATE RENTAL, or to PURCHASE, a SMALL IRONWORKS.—Address, with full particulars, to "S. J. W." Post-office, Wolverhampton.

TO ENGINE BUILDERS, RAILWAY COMPANIES, AND OTHERS.—WANTED, a SMALL LOCOMOTIVE ENGINE, NEW, or in good working order, to work the branches and short line of a colliery.—Tenders with full particulars, weight, and price, to be sent to G. B. FORSTER, Esq., Cramlington, Newcastle-upon-Tyne.

COAL AND IRONSTONE MINES TO BE LET, ON ROYALTY; about 100 acres, situate in the South Staffordshire district.—Apply to S. STOREY, Rho, near Wrexham.

NORTH WHEAL EMMA.—THE OFFICES of this COMPANY are 20, BARGE YARD CHAMBERS, BUCKLERSBURY.

GREAT WHEAL BUSY.—FORTY SHARES in this valuable property FOR SALE, at 6½ cash; or an agreement would be entered into to take all the loss and share the profit.—Apply, by letter, to Messrs. TUCKER and Co., 31, Sun-street, Bishopsgate.

MOUNT CARBON.—A FEW HUNDRED SHARES FOR SALE at 2s. per share.—Address, "Carbon," Mining Journal office, 26, Fleet-street.

M. R. JOHN RISLEY, MINE SHARE BROKER, JAMAICA COFFEE HOUSE, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, E.C. The following shares are worthy the especial attention of capitalists at present prices:—

East Basset. South Corn Brea. East Wheal Russell.

Pendene Consols. Wheal Harriet. North Wheal Trelawny.

* This mine is opening up in depth for copper equal to Bosswell Down, that divided 40,000, and Levant Mine, £160,000, on an outlay not exceeding £1000—both neighbouring mines. Shares bought and sold at the closest market prices, on reasonable terms.—Feb. 19, 1858.

MINING OFFICES, HAYLE, CORNWALL, AND 1, CROWN COURT, OLD BROAD STREET, LONDON, E.C.—JAMES HOLLOWOFFERS HIS ADVICE from information acquired amongst the mines, and in the mining district, to those desirous of investing.—Feb. 19, 1858.

M. R. GEORGE BUDGE, of 4, BIRCHIN LANE, CORNHILL, LONDON, has SHARES FOR SALE at the following prices:—

20 Gwion, 12s. 6d. 15 Kelly Bray, 3s. 6d. 50 Drake Walls.

20 Kitty (St. Agnes), £4. 100 Redmoor, 7s. 3d. 2 Bur. Bur. (Au.), £124. 2s.

4 Par Consols, £22. 50 Sortridge Cons., 29s. 10 Wheal Emma.

100 Wh. Harriet, 16s. 6d. 50 Vale of Towy, 29s. 9d. 2 Mary Ann, £47 1/2.

50 East Trefusis, £25. 100 Castell, 5s. 9d. 50 Tenby, £12 1/2.

50 Tamar Cons., 24s. 2 Trelewyan, 2 Sharp For.

50 Wheal Zennor, 17s. 5 Tolwadven, 50 Grenville, 31s. 3d.

1 Devon Gt. Cons., £170. 10 Wheal Margery, £25. 2 Wh. Margaret, 20s. 6d.

10 Wheal Gwennap, £25. 2 Wh. Margaret, 20s. 6d.

10 Wheal Gwennap, £25. 2 Wh. Margaret, 20s. 6d.

10 Wheal Gwennap, £25. 2 Wh. Margaret, 20s. 6d.

10 Wheal Gwennap, £25. 2 Wh. Margaret, 20s. 6d.

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10 Wheal Gwennap, £25. 2 Wh. Margaret, 20s. 6d.

L E C T U R E S T O W O R K I N G M E N .
GOVERNMENT SCHOOL OF MINES, JERMYN STREET.
The SECOND COURSE of SIX LECTURES on the FIRST PRINCIPLES OF CHEMISTRY, by Dr. HOFFMANN, F.R.S., will be COMMENCED on MONDAY, the 1st March, at Eight o'clock.

Tickets may be obtained, by working men only, on Monday next, from Ten o'clock, upon payment of a registration fee of 6d. each. Applicant is requested to bring his name, address, and occupation written on a piece of paper, for which the ticket will be exchanged.

T H E B Y C H T O N C O A L A N D C A N N E L C O M P A N Y , M O S T Y N (L I M I T E D) .—Capital, £30,000, in 6000 shares of £5 each.

The object for which this company is proposed to be formed is to work coal and other minerals in the Bychton estate, at Matys, in Flintshire.

Terms have been concluded with the lessors, that they shall receive one-third of the profits as the consideration for the transfer of their interest to the company; this is proposed to be effected by allotting to them 2000 shares, which will be considered as fully paid up.

The lease is for 21 years, from September last; it comprises 430 acres, and has been granted upon terms more than ordinarily favourable to the lessee.

An adit level upwards of a mile in length, driven through the estate at a very great expense, has proved seams of coal no less than 14 in. number. They are as follows:—

Cannel, a good gas and steam coal	7 ft. 0 in. thick.
Yard Coal, equal to Orrell King coal	5 ft. 6 in.
Blue Cannel, good gas coal	3 ft. 6 in.
5 Yard Coal, first-rate for house and steam purposes	14 ft. 6 in.
3 Yard Coal, good steam coal; this seam also contains	10 ft. 2 in.
15 in. of good gas seam on top	"
2 Yard Coal, excellent steam coal	6 ft. 0 in.
Durbor, very good house coal	7 ft. 0 in.
Stone Coal, second quality house coal	4 ft. 6 in.
3 ft. Coal, good smoky coal	2 ft. 6 in.
5 ft. Coal, usual Mostyn coal	4 ft. 6 in.
20 in. Coal, excellent steam coal	3 ft. 6 in.

Besides three other seams in the west part of the estate, viz.:—

5 ft. 6 in.	"
2 Yard Bythton, good	8 ft. 6 in.
3 ft. Coal, excellent	3 ft. 0 in.

It is estimated that there are in the estate more than 15,000,000 tons of coal and cannel. A principal shaft of 12 feet diameter, bricked, and set with Aberdove lime, has nearly completed. This will work the 5 yard coal; the 3 yard coal is being worked by another shaft; and a third shaft has been sunk to work the cannel coal.

The situation of the colliery is upon the line of the Chester and Holyhead Railway, and within a quarter of a mile of the Dee, affording the advantage of both land and water carriage, whilst its position in other respects must secure a large local sale.

The various seams can be worked with the greatest facility, and at an extremely moderate expense. The superior quality of the Mostyn coal is too well known to require comment, and the steam coal here is reported to be equal to that of the South Wales Collieries.

The estate contains also valuable veins of iron ore, to the number of about 60, besides large balls of iron ore under every seam of coal; these may all be worked with impunity.

The immense advantages possessed by this concern will, therefore, it is confidently anticipated, enable it to compete successfully with any other, and to realize to those who may embark in the undertaking a profit of almost incredible magnitude.

Applications for shares to be addressed to Messrs. TOWNSEND, RIDLEY, and JACKSON, solicitors, 21, Fenwick-street, Liverpool.

T H E C A R D I F F P R E S E R V E D C O A L A N D C O K E C O M P A N Y (L I M I T E D) .

Incorporated pursuant to the Joint-Stock Companies Act, 1856.

Capital £20,000, in 4000 shares of £5 each.—Paid up in full at the time of subscription.

R E G I S T E R E D O F F I C E , — B L A C K W E I R , C A R D I F F .

S E C R E T A R Y .—Mr. George Ashcroft.

A manufactory is now erected at Blackweir, Cardiff, and the manufacture and sale of the material commenced.

The patentee has undertaken to manage the works of the company, without remuneration for his time and experience, until dividends at the rate of £10 per cent. per annum are paid to the shareholders. A stipulation to this effect is incorporated in the Articles of Association, which may be seen at the office of the company by persons desirous of subscribing for shares, a small number only remain on sale.

Specimens may be seen, every information obtained, and references given, at the office of the company, Blackweir, Cardiff. Mr. GEORGE ASHCROFT, secretary, to whom applications for shares should be made. Specimens are also deposited and information obtained from—

Messrs. W. and G. RICHARDSON, 70, Cornhill, London.

Capt. HAVINDE, 68, Cornhill, London.

CHARLES HOE, Esq., Exchange-street, Liverpool.

Messrs. BARNARD, THOMAS, and CO., Albion Chambers, Bristol.

Messrs. RICHARD CORN and SONS, Swansea and Cardiff.

SANKEY GARDNER, Esq., Newcastle.

Capt. PHILBY, Jerusalem Subscription Rooms, Cornhill, London.

The material manufactured by this company possesses the following advantages:—

1. It is from 8 to 12 per cent. stronger than any coal from which it may be made.

2. ONE HUNDRED AND FIFTY-SEVEN TONS can be stowed on board ship in the space required for 100 tons of coal.

3. The blocks are of uniform size and weight (56 lbs. each), and they become harder and make a more enduring fire after the lapse of ten or twelve months than when newly made.

C H O L L A C O T T C O N S O L S M I N E , A N D I T S M A N A G E M E N T .

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In your Journal of Jan. 30, and Feb. 13, the two advertisements signed by Robert Daly (the dismissed secretary of this mine) are a mere subterfuge, emanating from himself and a self-packed constituted committee, to endeavour to obstruct the legitimate mode of carrying out the operations of the mine to prove its resources, for the benefit of the company as well as for the public weal.

It is impossible that anything emanating from such persons, to suit their own purpose, can damage my credit, or have any tendency to deteriorate my reputation, either in the county of Devon or Cornwall, or any other place where I have been known. It is not, perhaps, generally known why Mr. Daly was so summarily discharged from the secretaryship. It was for neglect, and refusal to do his duty. On Sept. 6 last he wrote to me that he could not send me a correct share list, as Mr. Ensor was not in the way, and that he (Daly) concocted the amounts by Mr. Ensor's directions, who at that date did not possess a share in the mine. On Dec. 15, two of the committee of management and myself proved that Daly had been transferring shares without receiving the calls due thereon. On Dec. 21 Mr. Daly refused to remit to me the cash which he had received, and which belonged to the company, in order to pay the labourers and others, although directed so to do by Messrs. Orion and Bigns (two gentlemen of the committee), but kept the money in suspense until Dec. 30. On Jan. 12, I requested Mr. Daly to convene a general meeting for the 20th, which was done, when a few shareholders, holding 65 (6000th) shares, and their leader, holding 170 shares, obstructed the proceedings, and refused to take the votes of the shareholders present by the number of shares, but would take them by a show of hands, giving the parties present who held only five shares the same power as some of the gentlemen present holding 1000 and 700 each. The proceedings at this meeting I was advised were illegal, and I consequently called, at the request of the committee, and in my own right as partner and manager, a special general meeting of shareholders for the 3d inst., giving each shareholder 10 days' notice thereof, the proceedings of which meeting have appeared in your Journal. Mr. Daly did not appear at this meeting, and refused to hand over the books, papers, and monies of the company to the committee, but in the meantime issued and sent circulars of the illegal proceedings of the 26th ult., with a statement of accounts, wherein he states that the adventurers were £20,11s. 3d. in debt after the calls had been paid, whereas it should be £13 3s. 9d. in favour of the company; and in the further statement of accountants says he had £40 14s. in hand, when he ought to have given credit for £13 10s. more, making it £54 4s.

Now, Sir, if business is to be carried on in such a manner as this, it cannot be wondered that Mr. Daly should have been unmercifully dismissed.

I am, Sir, your obedient servant,

JAMES CARPENTER.

Anderton Cottage, Tavistock, Feb. 18.

B R I C K S .—Messrs. OATES AND INGRAM inform brick makers

on an extensive scale that their PATENT SOLID BRICK MACHINE is now

THOROUGHLY and EFFICIENTLY TESTED, and are prepared to OFFER the

following counties to the trade, in districts, either by ROYALTY or PURCHASE:—

Middlesex, Surrey, Sussex, Essex, Kent, Norfolk, Suffolk, Cambridge, Oxford, Gloucester, Hereford, Berks, Bucks, Huntingdon, Devon, Cornwall, Dorset, Wilts, Hants, and Isle of Wight.

With this PATENT MACHINE the ordinary surface clay requires no preparation whatever, whilst that of a rocky nature has merely to be passed through rollers in the usual way, and thence, WITHOUT ANY TEMPERING, INTO THE MACHINE, FROM WHICH THE BRICKS ARE REMOVED DIRECT TO THE KILNS IN A STATE READY FOR BURNING.

The MACHINE is now making UPWARDS OF THIRTY BRICKS PER MINUTE AT THE WORKS OF MESSRS. KIRK AND PARKY, Government Contractors, Fort Elson, near Gosport; and also at the Patent Solid Brick Works of T. WALLS INGRAM, Oldbury, near Birmingham.

Application for orders to see the machine in operation to be made to Messrs. OATES AND INGRAM, Bradford-street, Birmingham. Samples of clay may be sent and passed through the machine, and the bricks burnt, or a sample brick will be sent to any party wishing to see one.

B L A C K A L D E R F I R E - B R I C K C O M P A N Y , W O R K S , N E A R P L Y M P T O N , D E V O N , M A N U F A C T U R E R S O F P L A I N , C I R C U L A R , A R C H , W E D G E , a n d B U L L - H E A D F I R E B R I C K S , F I R E L U M P S , T I L E S , &c., a n d e v e r y d e s c r i p t i o n o f F I R E G O O D S .

Office, 9, Duke-street, Westminster, London, S.W.

L E V E R ' S I M P R O V E D C O L L I E R Y B R A T T I C E - C L O T H , in all widths, from 18 to 30 in.—For samples and prices, apply to the manufacturer, ELLIS LEVER, 2, Cleveland-buildings, Market-street, Manchester.

A S S A Y O F F I C E A N D L A B O R A T O R I E S .

DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON.

Conducted by JOHN MITCHELL, F.C.S., Author of "Manual of Practical Assaying," Metallurgical Papers, &c.

Assays and Analyses of every description performed as usual. Special Instructor in Assaying and Analysis. Consultations in every branch of Metallurgical and Manufacturing Chemistry. Assistance rendered to intending Patentees, &c.

For amount of fees, apply to the office, as above.

G U A R A N T E E D P A T E N T S .—The present practice of granting

patents for inventions without examination or discrimination renders their validity and consequent value doubtful and uncertain; and, as the number of applications for patents annually increases, the risk of collision and of anticipation becomes greater. To meet these evils, the UNDERSIGNED are prepared to GUARANTEE BY BOND THE NOVELTY and VALIDITY OF PATENTS PROCURED and SPECIFIED BY THEM, on terms which may be known on application.

BARLOW AND CO., Patent Office, 39, Chancery-lane, London.

N E W P A T E N T A C T , 1852.—Mr. CAMPIN, having advocates

Patent Law Reform before the Government and Legislature, and in the pages of the Mining Journal, &c., is now READY to ADVISE and ASSIST INVENTORS

in OBTAINING PATENTS, &c., under the NEW ACT.

The Circular of Information, gratis, on application to the Patent Office and Design Registry, 108, Strand.

STEAM-ENGINE AND MINING MATERIALS FOR SALE.

M R . W I L L I A M B R O W N E is favoured with instructions to SELL, BY PUBLIC AUCTION, on Tuesday, the 2d March inst., at EAST POWERY CONSOLS MINE, in the parish of Lanivery, Cornwall, the WHOLE PLANT and LEASE of the said MINE, comprising a 36 in. cylinder STEAM PUMPING ENGINE, 9 ft. stroke, equal beam, with boiler about 10% tons, first piece of rod and caps complete.

1 large shear.
1 capstan, iron axle.
2 balance-holes.
19 ft. 12 in. pumps.
4 ft. 6 in. pumps.
1 ft. 11 in. top doorpieces.
1 ft. 11 in. H-piece.
1 ft. 11 in. working-barrel.
1 ft. 11 in. windshores.

1 ft. 11 in. stuffing-box and gland.
1 ft. 11 ft. 10 in. working-barrel.
1 ft. 10 in. doorpieces.
44 fms. 10 in. main rods, with plates and pins.
6 fms. 9 in. connection rods, with joints and caps.
36 fms. 1½ in. iron bucket rods.
50 fms. 6 in. whin-rope.

1 horse-whim, shaft tackle, and 2 kibbles tools.

Staples and glands, flange pins and rings, 50 fms. ladders, miners and smiths' tools, smiths' hammers, anvils, and vice, screwing stocks, rests, taps and plates, new and useful iron, two beams, scales and weights, zinc air-pipes, a quantity of nails, wine bottles, grinding-stone, gunpowder, safety-fuse, carpenter's bench, sundry sheets, barrows, shovels, hails, tailow, red and white lead, packer packing, fire and compass bricks, launders, a quantity of new and useful timber, plane, &c., about 40 tons of good coal, an excellent distill, &c. Also, the account-house furniture, and the LEASE of the mine, of which about 18 years are unexpired.

Above £5000 have been expended in operations, a great portion of which will be found available for the future development. The lodes, which are entirely unworked, are allowed to be of a very promising character.

The engine has worked but a very short time since its first erection. The machinery is new, and some of it never worked. The situation, being near Plym Gate, and close to the turnpike-road, affords a ready transit, and the whole is well deserving attention, and is intended to be sold without reserve.

Refreshments will be provided. Sale to commence at Eleven o'clock, as the whole is intended to be sold in one day.

Further particulars may be had of G. RICE, Esq., 10, Austin Friars, London; Capt. DALE, St. Stephen's; the agents of the mine; or of the auctioneer, St. Austell. Dated St. Austell, Feb. 15, 1858.

TO COLLIERY OWNERS AND OTHERS.

M R . B R O U G H W I L L S E L L , B Y A U C T I O N , a t B I G G E T S M A I N C O L L I E R Y , near Walboden, Newcastleton-Tyne, on Wednesday, the 3d March, ONE WINDING ENGINE, 49-horse power; one pumping engine, 110-horse power; one high-pressure engine, 4-horse power; one high-pressure winding engine, 70-horse power; one condensing winding engine, 49-horse power; stiths and drops, lot of bridge rails, &c. Catalogues are in preparation.

Bigget's Main is only a short distance from the Wafer Station, on the Tynemouth Branch of the North-Eastern Railway.—Blackett-street, Feb. 11, 1858.

WILLINGTON COLLIERIES.

M R . B R O U G H W I L L S E L L , B Y A U C T I O N , a t B I G G E T S M A I N C O L L I E R Y , near Walboden, Newcastleton-Tyne, on Thursday, the 4th March, ONE HIGH-PRESSURE WINDING ENGINE, 60-horse power, with boilers, complete; screens, shaft frame, coal tubs, a lot of 4 ft. bridge rails, old metal, and other materials. Catalogues are being prepared.

Willington is only a short distance from the Howdon Station, on the Tynemouth Branch of the North-Eastern Railway.—Blackett-street, Feb. 11, 1858.

WIDNES OIL WORKS AND SOAPERY, RUNCORN GAP, NEAR ST. HELEN AND WARRINGTON, LANCASHIRE.

M R . W H E A T L E Y K I R K very respectfully announces that he is

furnished with instructions from the proprietor, who is desiring the business, on account of his intended change of residence, to SELL, BY AUCTION, on Thursday, Feb. 25, 1858, on the premises of the said works known as the WIDNES OIL WORKS, Runcorn Gap, near St. Helens and Warrington, Lancashire, viz.—ALL THAT PLOT or PARCEL of LAND containing, by admeasurement, 3712 square yards or thereabouts, to be the same more or less, which is leased for an unexpired term of 67 years, at the low rental of £30 per annum, from the St. Helens Railway and Canal Company, upon which are erected thereon exceeding valuable works, the whole being on the said line of railway and canal, thus affording the utmost facility for transhipping goods to and from London, Liverpool, and Manchester, the coal and iron districts and indeed all parts of the kingdom or abroad.

The BUILDINGS, which are numerous, are built of brick of the best construction.

The UTENSILS and PLANT are likewise of the most modern class, and embrace

one cast-iron still, six of about 30 barrels, and four of 70 and 75 barrels of molasses;

five wrought-iron coolers, perfectly portable, being fitted together with fine joints, and bolts and nuts, holding 4000 gallons each; ten boiling pans, holding 330 gallons; a number of iron vats, holding from 5 to 8

MORE STEAM, BETTER FIRES, AND LESS SMOKE.— For Marine, Stationary, and Locomotive Boilers, Mr. LEE STEVENS'S PATENT REGULATING AIR-DOORS are found to be the most effective invention for increasing Steam, subverting Smoke, and promoting Ventilation and Draught; and, with his other appliances for Reverberatory, Pottery Kiln, and Furnaces of every peculiarity of construction, constitute a series of improvements for generating heat, economising fuel and preventing smoke, which accomplish all practical requirements. Testimonials, &c., obtained at 1, FISH STREET HILL, CITY, LONDON, E.C.; where information is also given of his improved PATENT GRATES, in which the fire can be kindled at the top or the bottom, so as to produce either slow or rapid combustion, with less smoke than in any other open fire-places.

OVERLAND ROUTE—WEEKLY COMMUNICATION BY STEAM TO INDIA, &c., VIA EGYPT.

The PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS for the MEDITERRANEAN, EGYPT, ADEN, CEYLON, MADRAS, CALCUTTA, THE STRAITS, CHINA, and MANILLA, by their steamers leaving Southampton on the 4th and 20th of every month; and for the MEDITERRANEAN, EGYPT, ADEN, and BOMBAY, by their packets leaving Southampton about the 11th and 27th of the month.

For further particulars, apply at the company's offices, No. 131, Leadenhall-street; and at Oriental-place, Southampton.

STEAM UNDER SIXTY DAYS ECLIPSED.

The MANO POLO of this line sailed with the steamship ROYAL CHARTER from Melbourne, and arrived in Liverpool eight days before her.

PASSAGE MONEY £14 AND UPWARDS.

BLACK BALL LINE BRITISH AND AUSTRALIAN EX-ROYAL MAIL PACKETS.

Appointed to sail from LIVERPOOL on the 5th and 12th of each Month,

FOR MELBOURNE,

Forwarding Passengers by Steam to various Ports in

AUSTRALIA AND TASMANIA.

ship. Register. Burthen. Captain. Date.

MONSOON..... 1084 3000 WMYNS..... 5th March.

RISING SUN..... No passengers. SMITH..... 13th March.

MARCO POLO..... 1625 3500 CLARKE..... 5th April.

NEW SHIP..... 1200 3000 —..... 13th April.

DONALD M'KAY..... 2504 5000 MUNDRE..... 5th May.

GREAT TASMANIA..... 2149 4500 BREWER..... To follow.

The above line is composed of the LARGEST, the FINEST, and FASTEST MERCHANT SHIPS in the WORLD, and have been built by the most celebrated builders of the day, including M'KAY, of Boston. They are commanded by men who have already rendered themselves famous, and their equipments and accommodations are unequalled by any line of ships afloat.

The Black Ball Line has had the distinguished honour of a visit from Her Majesty the Queen, who was most graciously pleased to say that she had no idea there were such magnificent ships in her merchant navy.

Freight and passage, apply to the owners, JAMES BAILES and Co., Liverpool; or to T. M. MACKAY and Co., 2, Moorgate-street, London, E.C.

WALKER'S PATENT DRY STAMPING MACHINERY, adapted for every kind of ORES. The success of those in use show that the work is done QUICKER, the stuff FINER, and will be found invaluable for EXTRACTING GOLD and SILVER.—Factory, 17, Cowper-street, City-road, where everything for mining purposes can be obtained.

TO PREVENT ACCIDENTS by WINDING OVER the HEAD GEAR, USE THE PATENT SELF-ACTING STEAM BREAK, which at every lift from the mine shuts off the steam from the winding engine and applies the break, also records the number of lifts made.—For illustrated circular and price, apply to HENRY GODDEN, engineer, St. Mary's, Manchester.

PATENT WIRE ROPES, ONE-HALF THE COST OF HEMP ROPES.

HENRY J. MORTON AND CO.'S (2, BASINGHALL BUILDINGS, LEEDS) PATENT WIRE ROPES, for the use of MINES, COLLIESIES, RAILWAYS, &c.; one-half the weight of hemp rope, and one-third the cost; one-third the weight of chains, and one-half the cost—in all deep mines these advantages are self-evident.

References to most of the principal colliery owners in the kingdom.

GALVANISED SIGNAL CORDS AND KNOCKER LINES;

will not rust or corrode, and not affected by the copper water in mines. Very strong, and not at all liable to break. Prices from £5s. per 100 yards.

PATENT ASPHALTED ROOFING FELTS, 1d. per foot.

DRY HAIR BOILER FELTS, saving 25 per cent. of fuel.

PATENT BOILER COMPOUND, for bad water.

FAIRBANK'S WEIGHING MACHINES, of all sizes.

GALVANISED IRON ROOFING AND SOUTING.

PATENT FLEXIBLE STEAM TACKING, 1s. 8d. per lb.

PATENT METALLIC PACKING, 4s. per lb. [than leather.

PATENT AMERICAN DRIVING BANDS, much cheaper and more durable.

FLAX HOSE PIPES, for water, &c., one-fourth the price of leather hose.

PATENT GALVANISED AIR-PIPES, for ventilation.

STOCK of MINING and RAILWAY STORES in Liverpool and London:—viz. OILS, GREASES, COTTON WASTE, SPUN YARN, WHITE LEAD, VARNISHES &c.; and at very low prices.—Address, 2, Basinghall-buildings, Leeds.

N.B. Illustrated price list on application.

MOST IMPORTANT TO COLLIER OWNERS AND COLLIER MANAGERS.

HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS, beg to call attention to their

IMPROVED SIGNAL BELLS,

specially prepared to meet the requirements of the new Act for the Inspection of all Mines. It has met with the decided approval of many large colliery owners and managers. SIMPLE, EFFICIENT, and CHEAP. Price 15s., 17s. 6d., and 20s. each.

BYRAM'S PATENT ANEMOMETER, for testing the ventilation.

Price 23s. to £1 4s. each.

TEAM PRESSURE GAUGES, very strong and accurate, £2 and £3 12s. 6d. each.

H. J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES, for the use of IRONWORKS, COLLIESIES, RAILWAYS, WAREHOUSES, &c.

The most ACCURATE MACHINES in use, and the cheapest.

MACHINES of all sizes, from 1 cwt. to 90 tons, for RAILWAY WAGONS, CARTS, or WAGONS.

For prices and all other information, apply to

HENRY J. MORTON AND CO., GALVANISED IRONWORKS,

2, BASINGHALL BUILDINGS, LEEDS.

Asphalted Roofing Felts, Boiler Felts, Galvanised Iron, Mining Stores, &c., in Stock.

PATENT COMBINED GAS WORKS, OF ALL SIZES, for the use of PRIVATE HOUSES, MANSIONS, RAILWAY STATIONS, MILLS, COLLIESIES, VILLAGES, MINES, &c.

FIXED COMPLETE, with greatly improved means for purifying, &c.

Works of all sizes, from 10 lights to 500 lights, estimated for. The construction is simple, that the works can be entrusted to the management of an ordinary labourer or servant. For LIGHTING CORNISH MINES these works are well adapted, and at a cost of one-half below the usual outlay.—Apply to

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2, BASINGHALL BUILDINGS, LEEDS.

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QUEKETT'S (JOHN) PRACTICAL TREATISE ON THE USE THE MICROSCOPE. Third Edition, with Eleven Steel and numerous Wood Engravings, £2.—Vol. II., edited by H. WATTS, F.C.S., just out, £1.

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RAHAM'S (THOS.) ELEMENTS OF CHEMISTRY; including the Application of the Sciences in the Arts. Second Edition, in 2 vols., 8vo., with numerous Wood Engravings, £2.—Vol. II., edited by H. WATTS, F.C.S., just out, £1.

MITCHELL'S (J.) MANUAL OF PRACTICAL ASSAYING; for the Use of Metallurgists, Captains of Mines, and Assayers in general. Second Edition, much enlarged, with Illustrations, &c., £1 1s.

QUARTERLY JOURNAL OF THE CHEMICAL SOCIETY. Vol. X., 1858, 1s.

Catalogue of Foreign Scientific Works can be had gratis.

London: H. Baillière, Publisher, 219, Regent-street; and 290, Broadway, New York.

THE LONDON WINE COMPANY LIMITED.

BRANCH OFFICE, 1, PRINCES STREET, REGENT STREET.

CHIEF OFFICES AND CELLARS, 43 AND 44, LIME STREET.

The DIRECTORS of THE LONDON WINE COMPANY SUPPLY PURE WINES SPIRITS at the lowest possible prices. HENRY ROBERTSON, Manager.

WINES FROM SOUTH AFRICA.

PORT, SHERRY, &c., TWENTY SHILLINGS PER DOZEN.

These wines, the produce of a British colony which has escaped the vine disease vintage occurring in February may account for the name, are, in consequence, scarce, and are warranted free from acidity and bidity, and are admitted by Her Majesty's Customs at half duty, hence the low price. A Free Sample Bottle of each 14 stamps, bottles included. Packages allowed for when required.

CELSIOR BRANDY, Pale or Brown, 15s. per gall., or 50s. per doz. Terms, Cash.

Cashier orders must contain a remittance. Cheques to be crossed "Bank of London."

J. L. DENMAN, Wine and Spirit Importer, 85, Fenchurch-street, London;

Counting-house, First Door on the Left up Railway-plate.

Mr. Denman now supplies these wines at 20s. per dozen; and as it is our rule not to speak in commendation of articles of which we are ignorant, it gives us much pleasure to confidently recommend these wines to our readers.—John Bull, Jan. 17, 1857.

We have taken the trouble to try Mr. Denman's wines, and have also submitted them to several of the clergy, and the opinion formed is that they are worthy of being praised.—Clerical Journal, Oct. 22, 1857.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM.
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If a rope breaks, the application of this patent to a cage will stop it under all circumstances, and is so simple that it will never be out of working order. It has been the means of preventing accidents at two collieries in Lancashire, and also tried experimentally at several others, all of which have shown the certainty with which it works. The right of use has been purchased by the following concerns, viz.:—

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Mr. John Gibson, Little Hulton Colliery, 2 cages.

Messrs. Rylands and Sons, Manchester, 1 cage.

The Dunkirk Coal Company, 4 cages.

The Trustees of the late Thomas Kindersley, Clough Hall Colliery, Staffordshire, 4 cages.

The Dukinfield Coal Company, 2 cages.

T. J. and J. Ashton, the Baileyfield Coal Company, Hyde, 2 cages.

Lord Vernon, Poynton Colliery, near Stockport, 11 cages.

The Bardsey Colliery Company, near Ashton-under-Lyne, 4 cages.

Messrs. Clayton and Brooks, near Stockport, 1 cage.

Astley and Bedford Colliery, Messrs. S. Jackson and Co., near Leigh, 10 cages.

Messrs. Lee, Jones, and Co., Oldham, 2 cages.

Messrs. Thos. Wright and Co., Little Hulton, 4 cages.

Mr. Wrigley, near Oldham, 1 cage.

Mr. Fletcher, Receiver, Clifton Colliery, 14 cages.

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THE CHARGE FOR PATENT BIGHT IS—

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THE MINING SHARE LIST.

Shares.	Miner.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5120 Alfred Consols (cop.), Phillock [S.E.] ... 21. 11s. 10d.	£11 1/2	13 1/2	£12 3 0	20	2 0 — Jan. 2, 1858.	
1624 Balnewidden (tin), St. Just	11 1/2	4	12 5 0	0	5 0 — Jan. 1, 1854.	
4000 Bedford United (copper), Tavistock [S.E.] ... 21. 6s. 5d.	6 1/2	6 1/2	9 16 6	0	5 0 — Dec. 19, 1857.	
2400 Boscar (tin), St. Just	20 1/2	7 5	21 0 0	3	0 0 — Sept. 4, 1857.	
2000 Botallack (tin copper), St. Just*	9 1/2	100	200 205	418 5 0	3 0 0 — Dec. 16, 1857.	
1200 Brightside and Froggy Grove, Derbyshire	9 1/2	2 1/2	3 0 0	3 0 0	0 0 — Apr. 30, 1856.	
1000 Brynail, Llanidloes, Montgomeryshire	7 1/2	3 1/2	3 0 0	0 0 0	0 5 0 — July 1, 1856.	
4200 Budnick Consols (tin), Perranporth	5 1/2	3 1/2	0 10 0	0 10 0	0 10 0 — Mar. 25, 1857.	
6000 Bwlch (silver-lead), Cardiganshire [L.] ... 3. 12s. 6d.	1	1	0 2 6	0 2 6	0 2 6 — July 30, 1856.	
4000 Calstock Consols (copper)	5	5 1/2	5 1/2	0 2 6	0 2 6 — Dec. 23, 1857.	
1030 Carn Bras (copper, tin), Illogan	15	50	50 55	257 10 0	2 0 0 — Nov. 11, 1857.	
2045 Carnyorth (tin), St. Just	4 1/2	6	6 1/2	0 15 0	0 0 0 — June 16, 1856.	
2000 Cefn Cwm Brynwy (lead), Cardiganshire	33	55	45	3 0 0	0 0 0 — Dec. 4, 1855.	
2000 Collacoeue (copper) Lamerton	5	16	14 15	2 5 0	0 0 0 — Dec. 2, 1857.	
2560 Corunow (copper, tin), Camborne [S.E.] ... 20	90	80 85	85 0 0	2 0 0	0 0 0 — June 10, 1857.	
1055 Craddock Moor (copper), St. Cleer	8	40	40 41	0 17 0	0 0 0 — Jan. 8, 1856.	
30000 Craven Moor, Limited (lead), Yorkshire	5 1/2	5 1/2	0 0 0	0 0 0	0 0 0 — Feb. 25, 1856.	
123 Cwmystryd (lead), Cardiganshire*	60	160	180	115 0 0	0 0 0 — Feb. 11, 1858.	
280 Derwent Mines (silver-lead), Durham	300	150	150	132 0 0	10 0 0 — Feb. 4, 1858.	
1024 Devon Great Consols (cop.), Tavistock [S.E.] ... 1	460	460 470	602 0	7 0 0	0 0 0 — Jan. 22, 1858.	
672 Ding Dong (tin), Galway*	32 1/2	18	18 1/2 19	16 7 6	1 0 0 — Mar. 2, 1857.	
179 Dolevath (copper, tin), Camborne*	200	200	200 225	94 0 0	8 0 0 — Oct. 12, 1857.	
12800 Drake Walls (tin, copper), Calstock [L.] ... 17. 12s.	2	2 1/2	0 13 6	0 2 0	0 2 0 — Sept. 11, 1857.	
200 East Devon (lead), Cardiganshire*	32	100	100	39 0 0	3 0 0 — Feb. 18, 1858.	
2045 East Falmonth (copper), Whitechurch	3	4	3 1/2	0 7 6	0 2 0 — Jan. 25, 1858.	
123 East Pool (tin, copper), Pool, Illogan*	24 1/2	340	150 300	295 0 0	2 10 0 — Dec. 28, 1857.	
1024 East Wheal Margaret (tin, copper)	7 1/2	3 1/2	0 5 0	0 5 0	0 5 0 — Jan. 11, 1854.	
5700 Exmouth (silver-lead), Christow	41. 12s.	200	200	13 0 0	0 2 0 — Dec. 25, 1857.	
1400 Ryan Mining Company (lead), Derbyshire	5	65	54 50	16 13 4	1 0 0 — Dec. 26, 1857.	
4940 Fowey Consols (copper), Tywardreath	4	4	4 1/2	0 6 0	0 6 0 — Feb. 17, 1857.	
4450 General Mining Co. for Ireland (cop., lead)	4	2	2 1/2	1 0 8	0 8 8 — June 5, 1852.	
3000 Goginan (silver-lead), Cardiganshire	11 1/2	3 1/2	22 0 0	0 5 0	0 5 0 — Sept. 5, 1850.	
1024 Gonamena (copper), St. Cleer	13 1/2	15	10 12	0 7 6	0 7 6 — Dec. 21, 1852.	
243 Grambler and St. Aubyn (copper)	109 1/2	110	110 15	7 0 0	1 0 0 — Jan. 5, 1858.	
6000 Great South Folgus [S.E.]	2 1/2	16	16 16 1/2	1 1 5 6	0 5 0 — Feb. 18, 1857.	
6656 Great Wheal Vor (tin, cop.), Helston [S.E.] ... 8 1/2	14 1/2	14 1/2	0 5 0	0 5 0 — Oct. 22, 1855.		
119 Great Wton (tin), Germoe	100	140	211 10 0	7 10 0	0 2 0 — Feb. 27, 1857.	
1024 Herodsfoot (lead), near Liskeard	8 1/2	7 1/2	7 1/2	3 15 0	0 12 0 — Jan. 25, 1858.	
6000 Hindon Down Consols (copper), Calstock	3 1/2	5 1/2	2 16 0	0 2 6	0 2 6 — Nov. 25, 1856.	
2000 Holyford (copper), near Tipperary	11	8 1/2	4 2 6	0 5 0	0 5 0 — Jan. 28, 1857.	
2500 Isle of Man, Limited (Lead)	25	42	42	55 17 3	1 0 0 — Dec. 16, 1857.	
78 Jamaica (lead), Mold, Flintshire	31. 13s. 6d.	—	380	0 0 0	5 0 0 — Mar. 10, 1851.	
2000 Laxey Mining Company, Isle of Man	100	1000	1000	1420 0 0	50 0 — June 30, 1857.	
160 Levant (copper, tin), St. Just	2 1/2	90	80 90	1062 0 0	4 0 0 — May 12, 1857.	
5000 Lewish Mines (tin, copper), St. Erth	61. 11s. 10d.	1 1/2	2 2 1/2	0 10 0	0 10 0 — Dec. 20, 1855.	
4000 Lisburne (lead), Cardiganshire, Wales*	18 1/2	120	120	307 10 0	3 0 0 — Feb. 4, 1858.	
6000 Marke Valley (copper), Cardon [S.E.] ... 41. 10s. 6d.	2 1/2	2	0 5 6	0 3 0 — Feb. 7, 1855.		
5000 Mendip Hills (lead), Somerset	3 1/2	1 1/2	1 1/2	0 5 0	0 5 0 — May 29, 1857.	
5000 Merlly (lead), Flint	3 1/2	1 1/2	1 1/2	0 5 0	0 5 0 — June 22, 1853.	
1800 Minera Mines (Limited), Wrexham	25	90	125	27 2 6	3 0 0 — Feb. 11, 1857.	
20000 Mining Co. of Ireland (copper, lead, coal)	7	17	17 1/2 17 1/2	13 7 9	0 12 0 — Jan. 7, 1858.	
5000 Nanteos and Penrhyn, Limited (£2 1/2 shares)	1 1/2	1 1/2	0 1 6	0 1 6 — April 30, 1855.		
4400 Nether Hearth, Wemoreland	2 1/2	1 1/2	0 2 0	0 1 0 — May 21, 1856.		
470 Newtowards Mining Company, Co. Down	50	35	48 0	0 1 0 — Oct. 17, 1856.		
200 North Pool (copper, tin), Pool	361. 10s. 3d.	70	60 70	324 0 0	2 0 0 — Dec. 26, 1854.	
6000 North Roskear (copper), Camborne	11	27	27 30	750 0 0	4 0 0 — Sept. 26, 1853.	
6000 North Wheal Bassett (cop., tin), Illogan [S.E.] ... nil.	16 1/2	16 1/2 17	13 19 0	0 5 0 — Oct. 28, 1857.		
6400 Par Consols (copper), St. Blasius [S.E.]	1 1/2	21 1/2	32 1/2 22	31 4 6	1 10 0 — Oct. 27, 1857.	
500 Peak United (lead), North Derbyshire	7 1/2	2 1/2	4 10 0	0 19 0 — April 12, 1856.		
200 Phoenix (copper, tin), Linkinhorne	100	370	370	244 10 0	20 0 0 — Nov. 0 — Nov. 18, 1857.	
1000 Polherro (tin), St. Agnes (Preferential)	15	—	18 11 9	0 3 0	0 3 0 — July 11, 1857.	
1772 St. Ives Consols (tin), St. Ives	—	—	0 10 0	0 10 0 — Dec. 1, 1857.		
560 Providence Mines (tin), Univ. Leinant	304. 13s. 2d.	80	82 1/2 85	70 4 6	0 4 0 — Nov. 18, 1857.	
2500 Rhoswydol and Bachedden (lead)	11 1/2	12	0 15 0	0 3 0 — Oct. 21, 1857.		
512 Rosewarne United (copper, tin), Gwinear*	12 1/2	27 1/2 30	32 10 0	1 10 0 — June 8, 1857.		
12000 Sortridge Consols (cop.), Whitechurch [S.E.] ... 6s.	1 1/2	1 1/2	0 11 6	0 1 6 — Jan. 26, 1858.		
238 South Cadron (copper), St. Cleer	3 1/2	350	500 0	8 0 — Jan. 26, 1858.		
128 South Crinnis (copper), St. Austell	19	285	60 0	20 0 — June 18, 1855.		
256 South Tolgas (copper), Redruth, Cornwall	14	155	150 160	74 0	3 0 0 — July 8, 1857.	
496 South Wheal Frances, Illogan [S.E.] ... 184. 18s. 9d.	250	230 225	232 5 0	7 0 — Jan. 4, 1858.		
202 Spearner Consols (tin), St. Just, Cornwall	32 1/2	2 1/2	8 8 6	2 6 — Dec. 10, 1853.		
202 Spearner Moor (copper), St. Just*	23 1/2	2 1/2	4 5 0	0 10 0 — Jan. 13, 1856.		
970 St. Aubyn and Grylls (cop., tin), Breage	62. 3s. 4d.	15	4 4 4	0 17 6	0 1 0 — April 14, 1857.	
20000 St. Day United (tin and copper)	2	1 1/2	1 1/2	0 2 6	0 1 0 — Sept. 14, 1857.	
470 St. Ives Consols (tin), St. Ives	16	32	35 40	915 0 0	1 0 0 — Nov. 19, 1857.	
9000 Tamar Consols (sil.-lead), Beerwalton [S.E.] ... 40	115	110	61 5 0	2 0 0 — Feb. 12, 1856.		
6000 Vale of Towy (lead), Carmarthenshire	1 1/2	1 1/2	0 3 9	0 0 0 — June 12, 1857.		
25000 Whosydol and Bachedden (lead)	11 1/2	12	0 15 0	0 3 0 — Oct. 21, 1857.		
512 Wodehouse United (copper, tin), Gwinear*	12 1/2	27 1/2 30	32 10 0	1 10 0 — June 8, 1857.		
12000 Sortridge Consols (cop.), Whitechurch [S.E.] ... 6s.	1 1/2	1 1/2	0 11 6	0 1 6 — Jan. 26, 1858.		
238 South Cadron (copper), St. Cleer	3 1/2	350	500 0	8 0 — Jan. 26, 1858.		
128 South Crinnis (copper), St. Austell	19	285	60 0	20 0 — June 18, 1855.		
256 South Tolgas (copper), Redruth, Cornwall	14	155	150 160	74 0	3 0 0 — July 8, 1857.	
496 South Wheal Frances, Illogan [S.E.] ... 184. 18s. 9d.	250	230 225	232 5 0	7 0 — Jan. 4, 1858.		
202 Spearner Consols (tin), St. Just*	23 1/2	2 1/2	8 8 6	2 6 — Dec. 10, 1853.		
970 St. Aubyn and Grylls (cop., tin), Breage	62. 3s. 4d.	15	4 4 4	0 17 6	0 1 0 — April 14, 1857.	
1024 St. Day United (tin and copper)	2	1 1/2	1 1/2	0 1 0	0 1 0 — Dec. 20, 1854.	
400 United Mines (copper), Gwynedd [S.E.] ... 40	115	110	61 5 0	2 0 0 — Feb. 12, 1856.		
30000 Vale of Towy (lead), Carmarthenshire	1 1/2	1 1/2	0 3 9	0 0 0 — June 12, 1857.		
512 Wendron Consols (tin), Wendron	23 1/2. 7s. 5d.	40	34 1/2 35%	2 0 0	1 0 0 — Sept. 22, 1857.	
6000 West Bassett (copper), Illogan [S.E.] ... 1 1/2	25	25 30	12 18 0	0 8 — Jan. 27, 1858.		
248 West Carmarthen (copper), Liskeard [S.E.] ... 20	110	110 115	285 5			